NATIONAL PETROLEUM NEWS

Vol. XVIII Cleveland, Ohio, April 28, 1926 No. 17

Changes in Auto Lubrication Methods May Affect Station Business

HOW much of the lubricating oil business of the present day jobber may dwindle away in the next four years; how much of his investment in draining racks and greasing equipment may become unprofitable in that time, and how may he adjust his business to keep in line with new lubrication systems for cars brought out by automobile engineers?

This was the question—not altogether a comfortable one—left in the minds of the oil men who attended the annual meeting of the Minnesota Petroleum Assoc. in Minneapolis this week after they had listened to the remarks of J. L. Murray, of National Petroleum Marketers' Association.

Mr. Murray said he believed the lubricating oil business is due for a jolt, and that soon. He thinks the Independent oil men of the country ought to prepare for it. "The speed of competition" was Mr. Murray's subject. "Chassis lubricators already are being built into automobiles and made to operate successfully in the more expensive models. They are obtainable even in cars of the $1000 class. The plunger system eliminates expensive greasing operations. It improves spring shackle lubrication to the end that a chassis will last much longer than formerly. They are accurate in their operation and distribute oil to points of friction in an economical way. Competition may force the adoption of these improvements so rapidly that more than half the cars in use will have them by 1927.

"Dilution removers for motor oils have been objects of scientific experiment for five years already and some of them are now rather efficient. The Skinner Oil Rectifier, which is considered among the more successful ones, is already in use on more than 40,000 motor cars, not to mention industrial motors. Other similar inventions are growing in popularity meanwhile. Their use may reasonably be expected to triple the life of any batch of lubricating oil in an automobile engine. If motor oil can be made to last three times its present normal life, what might that development do for lube oil prices, as well as service equipment?

Three Years' Growth

"THE three years spoken of is only a hypothetical figure for convenience and comparison. The four-wheel brake is only four years old so far as its commercial application to the automotive industry is concerned. Three years ago only about 1000 cars in the world had brakes on all four wheels. There was much talk against it by manufacturers and dealers. But it was a practical success and the public demanded it. Competition forced it, and in three years, the number of automobiles in use with four wheel brakes had increased from three per cent to 60 per cent of the total.

Leaving the automobile industry, Mr. Murray further illustrated the speed of competition. "Radio has been past the stage of novelty for several years," he said, "but popular broadcasting started only five years ago. Now there are 5,000,000 receiving sets in the country. Every village and hamlet has its radio service station and equipment store.

"Domestic oil burning is only about five years old as an industry. Now the industry is expanding at the rate of about 100 new manufacturers a year. Today there are said to be roughly 540 practically successful oil burners on the market."

The first day of the convention, F. A. Pielsticker, vice president of the Skelly Oil Co., spoke on "Cooperation Between Refiner and Marketer." He was hopeful in regard to the 1926 market, and urged jobbers to buy their supplies from one refiner consistently, in order that the supplier might know what to count on in the way of outlet. He also pointed out why such a policy was advantageous to the jobber.

R. V. Mothersill, of the Minnesota Compensation Insurance Board, spoke on "Compensation Rates." A talk by Hjalmar Nilsson, state oil inspector, on the operation of the gasoline tax law concluded the first day. Mr. Nilsson made special reference to refunds on the gasoline tax, and outages.

Montgomery on Competition

THE second day of the meeting, Don E. Montgomery, of the Wisconsin department of markets, discussed "Unfair Competition in the Oil Marketing Business." H. G. James, secretary of the American Oil Men's Association, discussed "Business Ethics."

Ten exhibitors displayed equipment in the Francis First room of the Nicollet Hotel, where the convention was held. Secretary Paul Hadlick reported an unusually good attendance at meetings and a lively interest taken in all discussions.

All four of the directors whose terms of office expired this year were re-elected.

The report of Secretary Hadlick showed how the Minnesota Independents have joined to meet the competition of the Quantity Discount Agreement of the Standard Oil Co. of Indiana. Through a statewide coupon exchange the Minnesota jobbers have been able to handle and retain a great many intercity Q.D.A. contracts, which gallonage might otherwise have been lost to some marketer of wider operation. There are now 148 cooperating in the Q.D.A. coupon ex-

WIRE BULLETIN

J. M. Wolf, head of the Southern Minnesota Oil Co., Fairmont, Minn., was elected president of the Minnesota Petroleum Assoc. for another term on April 22 by directors following the association's most successful convention here, April 21 and 22. Other officials of 1925 succeeded themselves. Minnesota now can boast the largest membership of any state association. Five new members taken in at the convention raised the number to 200 even.

change in Minnesota. In part Mr. Hadlick said:

"The session of the legislature during the early part of 1925 found your secretary constantly in attendance at the State Capitol. In addition to preventing some obnoxious legislation passing, we succeeded in seeing that a fair and equitable gasoline tax law was passed. The law makes a liberal allowance for shrinkage and payment of tax refunds. When the oil inspection department started collecting the tax the secretary worked with Mr. Nilsson to the end that the law would be properly administered.

"Our state legislature will not meet again until next January and at that time there is no question but what an attempt will be made to increase the state gasoline tax. The secretary will oppose any increase and asks the membership to assist in defeating any measure which will increase the burden of taxation upon motorists. The secretary also expects to fight for a lowering of the high tax on trucks, now placed at 5 per cent.

"In connection with state work, the secretary on January 1 entered into a quantity discount agreement with the commission on administration and finance which permits our members, so participating, to compete for state business in their locality on the same basis as the Standard Oil Co.

"This association, together with the North Dakota Petroleum Association, has employed the Security Traffic Bureau of Fargo to bring a suit for a reduction in freight rates from Group 3 into Northwestern Minnesota and North Dakota. We have also secured a reduction in the fire insurance rate on filling stations from 75 cents to 50 cents per hundred. Last fall the association instituted a coupon interchange system for its members and over two-thirds of the members have signed contracts to participate. The real fruits of this system will be realized this summer during the motoring season. It is a simple, inexpensive system that is workable and puts the local independent company in as good a position as the Standard Oil Co. in the selling of coupon books. We have also made it possible for members to purchase a uniform coupon book at no extra cost, of which many have taken advantage."

J. M. Wolf, re-elected president Minnesota Jobbers' Association

Twin State Elects New Vice-President

Staff Special

TULSA, April 24.—E. J. Gorman, who for some time past has been general manager for the Twin State Oil Co., Oklahoma subsidiary of the Sun Oil Co., was elected vice-president and general manager at the Twin State annual meeting held in Tulsa during the past week. Mr. Gorman has been with the company for a number of years, starting in a minor capacity and working himself up to the head of its activities. His election to vice-president comes as a fitting recognition of his efforts.

Other Twin State officers, all of whom were re-elected, are: J. Edgar Pew, of Dallas, president; Frank Cross, Philadelphia, vice-president; R. S. McFarland, head of the land and geological department, Tulsa, secretary; and E. C. Stewart, Philadelphia, treasurer.

TULSA.—C. A. Willis, assistant salesmanager for the Empire Refineries, Inc., returned today from a trip through the northern states in the interest of his company.

Coming Meetings

Michigan Independent Oil Men's Association, Hotel Downey, Lansing, Mich., May 6.

Association of Natural Gasoline Manufacturers, Mayo Hotel, Tulsa, May 5, 6.

Kansas Oil Jobbers' Association, Lawson Hotel, Wichita Kans., May 7.

U. S. Chamber of Commerce, 14th annual meeting, Washington, D. C., May 11, 12, 13.

Wisconsin Independent Oil Jobbers, Association Hotel Conway, Appleton, Wis., May 12.

National Oil Scouts Association of America, Gunter Hotel, San Antonio, Tex., May 17, 18.

Natural Gas Supply Men, Inc., at International Exposition Grounds, Tulsa, May 17, 18, 19, 20.

Minnesota Petroleum Association and Wisconsin Independent Oil Jobbers Association, joint meeting, Hotel Stoddard, La Crosse, Wis., June 16.

American Petroleum Institute, Standardization Conference, Hotel Broadmoor, Colorado Springs, Colo., June 15, 16, 17.

Ethyl Gas on Sale Soon By S. O. Indiana

CHICAGO, April 24.—Stations of the Standard Oil Co. of Indiana, throughout the entire territory will be marketing "Ethyl Gas" again within a few weeks. No definite date has been set for the resumption of its sales. But a few shipments of the product already have moved out from Whiting, Ind., where Standard's refinery is located, to distant points of distribution.

Standard Oil Co. of Indiana has no facilities for making tetra ethyl lead but buys it from an eastern manufacturer. Under the rules prescribed for the sale of the product, however, it may not be mixed at the filling station as it was formerly but the blend with gasoline must be made at the refinery, so Standard of Indiana is mixing the product at Whiting and shipping the blend in tank cars to points of distribution.

The elimination of the pump attachment with which the ethyl fluid was injected into Red Crown gasoline when the Standard Oil Co. marketed it before, means that "Ethyl Gas" will have to be handled with different tanks and pumps at filling stations. So the treated gasoline will have to have new equipment or replace Solite (Standard's high test gasoline) which is sold generally throughout the territory now.

R. W. Stewart, chairman of the board of directors, says ethyl gasoline may replace Solite or may have special equipment; the company officials have not established a set policy in the matter yet. "My chauffeur says he is not going to quit using Solite", Colonel Stewart concluded.

Cosden Negotiating For Hawkeye Stations

TULSA, April 24.—The Mid-Continent Petroleum Corp. (Cosden & Co.) has been negotiating for the purchase of distributing properties of the Hawkeye Oil Co. of Waterloo, Iowa. Officers of the company have been making a careful check of the properties recently. Thus far no deal has been closed.

The Hawkeye Oil Co. is one of the largest Independent distributors of petroleum products in Iowa. It operates about 400 stations. Formerly the company was a subsidiary of the Producers & Refiners Corp. but was later repurchased by its former owners, the Cawards.

It has been expected for some time that the Mid-Continent would begin acquiring a distributing outlet under its own management for at least a part of its large output. The West Tulsa refinery of the company has a capacity of about 40,000 barrels per day and normally runs around 25,000 barrels. Under the management of J. S. Cosden no desire was evident for the company to be other than a producer and manufacturer. Since Jacob France has assumed the presidency of the company, however, many of the former policies have been changed.

News Index This Issue

National Petroleum News

General

Warns Jobbers to Watch for Changes in Lubrication 17
California Companies Order Steel Storage 20
Committee On Standardization of Engines Reports 28
Ohio Oil Co. Extends Its Activities ..... *By Lawrence E. Smith* 31
Finds Nothing Wrong in Associated-Tide Water Merger 32
Change in Handling of Tank Cars Postponed 36
Sinclair Operations Netted $1.01 a Share in 1925 ..... *By Roger B. Stafford* 39
Petroleum Committee of A. I. M. E. Represents All Sections 41
Time Lost In Carrying Pipe Line Across River ..... *By A. F. Hinton* 47
Mexico Carrying Out Its Nationalization Program ..... *By V. B. Guthrie* 75
Definitions of Items for Uniform Balance Sheet 84

Production

Crude Oil Production by Districts 24
New Sand in Salt Creek Field ..... *By Lawrence E. Smith* 29
Pure Oil Co. Weighing Load on Wells ..... *By Paul Wagner* 42
Rocky Mountain Drilling Operations for March 46
Jetties Set in Riverbed to Protect Well 48
Marland Opens New Grant County Pool ..... *By A. F. Hinton* 55
Week's Completions 55-57
Oil Possibilities of Southeast Utah 87
Oil Showings Near San Francisco Bring Further Drilling ..... *By Paul Wagner* 93

Refinery & Natural Gasoline

N. P. N. Weekly Western Refinery Operations 23
Traffic Men to Meet With Natural Gasoline Association .... *By J. C. Chatfield* 27
Program for Natural Gasoline Men's Meeting 27
The Texas Co. Tells About Adams Patents ..... *By R. C. Holmes* 45
Offers to Operate His Refineries for Jobbers 51
Anti-Knock Motor Fuel Derived By Cracking Shale Oil ..... *By Gustav Egloff* 81

Marketing

Trade Expects Texas Co. to Announce High Test Gas 32
Rumely Sells Oil for Tractors "Not for Profit" ..... *By Ward K. Halbert* 34
How Much Air Do You Carry? ..... *By V. B. Guthrie* 69

Departments

We See by the Papers 60
The Editors' Viewpoint 61
Here and There 101
Gassing Slightly 102
Industrial Notes and Catalogs 104
New Oil Station Construction 105

Markets

Refinery Price Tables 115-117
Tank Wagon Price Tables 119
Complete Export Markets 120-121
Crude Oil Prices, All Fields 122
Refiners' and Compounders' Supply Prices 123
Oil Company Finance 124-126

National Petroleum News is copyrighted, 1926, by the National Petroleum Publishing Co. Single copies, 10 cents. Subscription rated at $2.50 per year in the United States and Mexico (U. S. Money), $3.50 in Canada and $5.00 in all foreign countries. Trademark registered U. S. Patent Office. Members of Audit Bureau of Circulations, Association Business Papers, Inc.

Published at

TULSA	NEW YORK	MAIN OFFICE	HOUSTON	CHICAGO
Bank of Commerce Bldg.	342 Madison Ave.	812 Huron Road Cleveland, Ohio	608 West Bldg.	360 North Michigan Ave.

Order Steel Tanks to Replace Earthen Reservoirs in California

By Special Correspondent
LOS ANGELES, April 25

IT appears that the practice of storing great volumes of oil in earthen storage in California may be changed as a result of the two tank farm fires suffered by the Union Oil Co. recently at San Luis Obispo and Brea.

The Union Oil Co. has called for bids on steel plates for storage tanks with an aggregate capacity of 6,200,000 barrels, this being about 75 per cent of the amount of oil that was destroyed in the two fires. Another indication of the tendency is the recommendation of the engineers of the Board of Fire Underwriters of the Pacific which investigated the conflagration.

The report of the engineers says, "We had thought the decreasing production of Signal Hill would make it possible to do away with storage of crude in reservoirs but find there are new field developments in town lot locations near Signal Hill. For the insurance companies it would seem best to keep off lines on crude oil in wooden top containers (the burned reservoirs had wooden roofs) or any property exposed by them."

Safety engineers of several of the major California companies who witnessed the tank farm fires at San Luis Obispo and Brea are revising many of their former conclusions and trying to work out new and better fire prevention methods in the light of the experience at those fires.

It is asserted that during the Brea fire those engineers who were standing on the sidelines were surprised to discover that one of the big reservoirs was boiling over more than two hours before they expected it to reach the boiling over stage. This fact has caused many engineers to discard much of the data dealing with the boilover hazard and to start work on an entirely new set of calculations.

Steel Faced Dikes Destroyed

AT Brea, it was found that earthen dikes, thrown up hastily to a height of five feet and faced with corrugated steel in the hope that they would hold the oil within a given area after the boilover, were completely swept away and the steel facing was destroyed. As a result of this experience, it is reported that some engineers have devised a plan by which they can erect a system of earthen dikes 25 feet high which will offer strong resistance in case of fire and which will cost but little more than barriers five or six feet high.

It seems likely that the fires will lead to a tendency to restrict production more nearly in line with requirements because tankage to accommodate all the oil that has been contained in earthen concrete-lined reservoirs would be almost prohibitive and the fires have lent new emphasis to the often repeated truism that the safest place to store surplus oil is in the ground.

Despite the high cost of steel tankage, it is understood that other companies whose combined stocks of crude stored in reservoirs totals more than 17,000,000 barrels, are asking for bids on large quantities of plates for the erection of steel tanks.

It is understood that the Fire Underwriters of the Pacific are working out a detailed report on the fires, together with conclusions regarding the policy of the insurance companies in the future in insuring oil storage risks but this report will probably not be ready for several weeks.

Water Greatest Hazard

TWO important points are brought out by the underwriters' engineers in their preliminary report. One is that water in the reservoirs constitutes the greatest hazard and should be constantly pumped out as it settles, instead of being allowed to accumulate in large quantities in the bottom of the reservoirs. It is the presence of water that creates the boilover hazard.

The second is that filling the vapor space above the oil in the reservoirs with flue gas from refineries may prevent or at least minimize the danger of explosion and fire. Concerning the causes leading up to the fire, the insurance engineers' report said:

"1. This, (the San Luis Obispo fire) like the fire at Stewart Station, is an aftermath of the Signal Hill overproduction of oil, necessitating emergency handling. With excess quantities of crude oil rapidly brought out of the wells, containers had to be provided, as steel tankage for the whole amount was out of the question, recourse to reservoirs resulted. This was undesirable because of losses by evaporation, which different concerns tried to obviate in various ways.

"Tightness designed to retain vapors cannot be carried far in a large roof of limited strength, but all concerns gave attention to this. Further provision was made in some cases for holding down vapor by a blanket of gases from refinery stacks where available; others drew the vapors off by pipes and air pumps and had them absorbed and recovered as gasoline. Others still got rid as soon as possible of light crude oil in reservoirs, running it through stills to remove tops and putting the non-volatile residue in reservoirs. Reservoirs of residuum, in California at least, never have been struck by lightning, though the crude in Pacific Oil Company's reservoir at Kern River field, struck last summer, was practically of the same nature except for the presence of water in suspension. The Union Oil reservoirs struck last week held light crude.

"Claim is made that the absorption vacuum tended to increase the proportion of air under the roofs and intensified the explosions. The use of petroleum foam, such as Sealite, which has been withdrawn from the market also would be liable to result in the harzardous mixture of air and vapor.

"2. Claim is made that presence of flue gases under roofs will make explosion impossible. This seems likely from the chemists' viewpoint and may prove the solution of the problem.

"Only time can tell whether protective devices, including lightning arresting devices, can be relied on.

Boilover Hazard Miscalculated

"3. The boil-over hazard has not been measured properly even by the oil companies, whose engineers have studied oil fires closely. No doubt practice hereafter will be to take account of the wave due to velocity and make greater spacing around containers of undehydrated crude. Instead of keeping water at the bottom, it should be strictly cleared out, even if the result is loss of oil by seepage. Our rated reservoirs should be checked immediately on this score. Present dikes are too low and not properly turned back.

"4. Salvage of oil from burning reservoirs in sufficient proportion to reduce insurance loss is a myth, so far as recent experience shows. With tanks it may be different, but even so, very painstaking check should be made of each case.

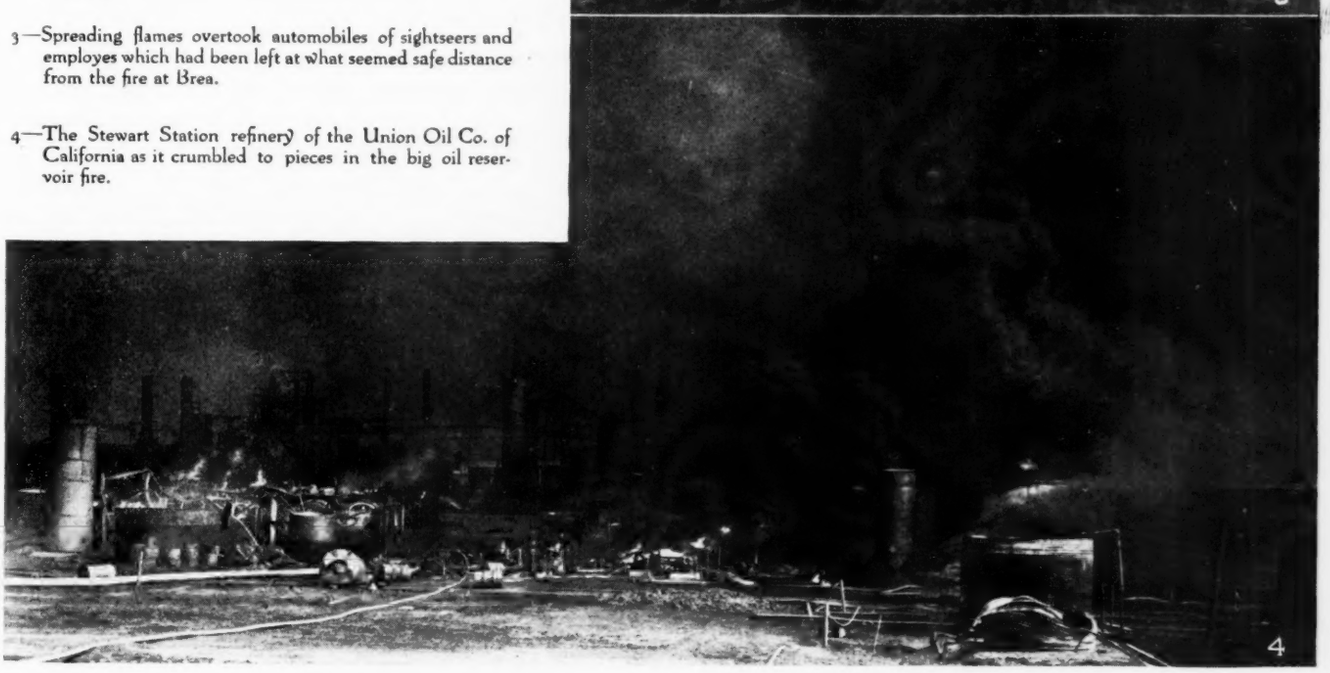
"5. Lightning in California is a fact, even in Southern California. The last fire was not the only case, as a man was killed on a farm a few days before. We have had reports of lightning effects around San Luis Obispo and Coalinga from time to time, but the Kern River field had at the same time claimed immunity, along with Southern California, until sharply shown otherwise a few years ago.

"On the whole, however, any fair-minded investigator would hardly claim that the past 10 months' experience is likely to be the average henceforth. This last storm is certainly a very 'unusual' occurrence in striking two separate tank farms a day apart, and in striking in the south particularly."

The Union Oil Co., has issued an announcement to the effect that as soon as it has been able to determine the net results of the conflagration it will pass the information along to its stockholders in the form of a balance sheet as of March 31, last.

When Flames Licked Up 8,500,000 Barrels of Oil

[Photos from the two fires at Union Oil Company of California properties near San Luis Obispo and near Brea April 7 and 8]

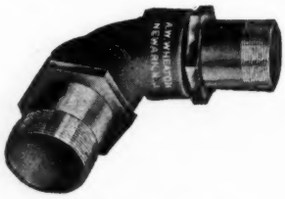


1—Effect of intense heat on railroad track that ran alongside an oil reservoir of the Union Oil Co. of California at Brea.

—A miniature tornado, developed from heat at the oil reservoir fire at Brea, uprooted scores of mature English walnut trees in a grove on the Stewart Station tank farm property.

3—Spreading flames overtook automobiles of sightseers and employes which had been left at what seemed safe distance from the fire at Brea.

4—The Stewart Station refinery of the Union Oil Co. of California as it crumbled to pieces in the big oil reservoir fire.



Double Swing Joint

Type 30
Tank Truck Faucet

Single Swing Joint

Type A
Tank Truck Faucet

Type 26
Loading Valve

Type 24
Tank Truck Faucet

They're Money-Savers
—*every one*

Here are a few Wheaton Products —money savers, every one. That's what users of Wheaton Faucets, Valves, Nozzles, Joints, etc., have learned about these and every other article bearing the name Wheaton. And the reason is simple—it's the *quality* that is built into them. Ask any man who is qualified by knowledge of equipment and he will tell you that Wheaton Products are known throughout the entire oil industry as the *Quality Products* of their field. And, if their first cost is higher than that of other makes—which is seldom the case —Wheaton Products make up the difference many, many times by their long life of economical service. Send for catalog today.

A. W. WHEATON BRASS WORKS, NEWARK, N. J.

Type B
Tank Truck Faucet

Type 25
Loading Valve

Type 35 Non-Drip
Lubricating Faucet

Wheaton

Compilation Of Mid-Continent Refinery Operations

All Rights Reserved to National Petroleum Publishing Co.

National Petroleum News

Mid-Continent Refinery Operations Week Ended April 23 (By Telegraph)

	Kansas	%Change Previous Week	Oklahoma	%Change Previous Week	No. & Cent. Texas	%Change Previous Week	No. La.-Ark.	%Change Previous Week	Total	%Change Previous Week	Totals Week Ended Mar. 26
Plants Reporting	23		46		41		14		124		124
Daily Cap. (Bbls.)	98,200		165,900		144,300		51,700		460,100		460,100
Da. Av. Crude Runs	48,945	— 0.1	100,685	+ 2.5	65,664	+21.4	47,398	+ 5.4	262,692	+ 6.7	245,349
Da. Av. Other Oils	5,046	+244.4	—2,590	.....	3,440	— 8.3	931	+28.4	6,827	—21.2	12,083
GASOLINE—Gallons											
Stocks April 16	13,927,071		50,749,684		17,567,045		6,886,668		89,130,468		95,785,589
Prod. 4-16 to 4-23	7,812,370	— 2.0	13,335,276	— 2.9	7,184,303	+23.8	3,271,655	+ 0.4	31,603,604	+ 2.7	31,438,997
Ship. 4-16 to 4-23	8,213,656	+ 7.3	14,278,145	— 4.3	6,059,655	— 7.0	2,994,215	— 0.8	31,545,671	— 1.7	32,195,352
Stocks April 23	13,525,785	— 2.9	49,806,815	— 1.9	18,691,693	+ 6.4	7,164,108	+ 4.0	89,188,401	+ 0.1	95,029,234
Ratio Sales to Prod	105.1%		107.1%		84.3%		91.5%		99.8%		102.4%
KEROSENE—Gallons											
Stocks April 16	1,436,205		3,471,078		1,183,374		307,312		6,397,969		8,591,547
Prod. 4-16 to 4-23	1,265,947	+ 5.9	2,645,807	+32.5	1,109,119	+21.3	515,781	+11.1	5,536,654	+21.1	5,449,547
Ship. 4-16 to 4-23	1,228,237	— 4.0	3,412,670	+12.7	1,170,173	+15.2	479,629	— 6.2	6,290,709	+ 7.8	5,099,158
Stocks April 23	1,473,915	+ 2.6	2,704,215	—22.1	1,122,320	— 5.2	343,464	+11.8	5,643,914	—11.8	8,941,936
Ratio Sales to Prod	97.0%		129.0%		105.5%		93.0%		113.6%		93.6%
STOVE DISTILLATE—Gallons											
Stocks April 16	267,377		1,689,319		117,948		22,932		2,097,576		3,084,188
Prod. 4-16 to 4-23	423,433	— 0.7	653,947	+40.2	344,547	+15.4	21,042	—20.1	1,442,969	+18.5	1,866,943
Ship. 4-16 to 4-23	348,930	—17.3	682,607	+19.1	275,526	—19.3	16,716	—11.9	1,323,779	— 2.4	2,112,040
Stocks April 23	341,880	+27.9	1,660,659	— 1.7	186,969	+58.5	27,258	+18.9	2,216,766	+ 5.7	2,839,091
Ratio Sales to Prod	82.4%		104.4%		80.0%		79.4%		91.7%		113.1%
GAS OIL—Gallons											
Stocks April 16	6,454,097		35,375,764		6,236,050		6,163,244		54,229,155		51,088,168
Prod. 4-16 to 4-23	1,471,634	+17.5	1,006,969	—58.0	170,249	—27.2	2,673,447	+ 9.0	5,322,299	—16.0	4,699,764
Ship. 4-16 to 4-23	630,920	—48.9	1,555,730	+28.3	309,550	+21.7	1,967,675	—12.9	4,463,875	—10.0	4,539,419
Stocks April 23	7,294,811	+13.0	34,827,003	— 1.6	6,096,749	— 2.2	6,869,016	+11.5	55,087,579	+ 1.6	51,248,513
Ratio Sales to Prod	42.9%		154.5%		181.8%		73.6%		83.9%		96.6%
FUEL OIL—Gallons											
Stocks April 16	5,083,750		36,007,873		17,857,236		4,272,030		63,228,889		70,976,631
Prod. 4-16 to 4-23	4,491,836	— 0.5	8,260,028	+ 2.5	8,874,146	+13.0	7,323,682	+ 6.8	28,949,692	+ 6.1	28,024,787
Ship. 4-16 to 4-23	4,506,578	— 6.5	8,777,138	+ 9.4	7,892,515	+ 1.6	7,116,078	+ 3.6	28,292,309	+ 2.9	31,953,738
Stocks April 23	5,069,008	— 0.3	35,490,763	— 1.4	18,838,867	+ 5.5	4,479,634	+ 4.9	63,878,272	+ 1.0	67,047,680
Ratio Sales to Prod	100.3%		106.3%		88.9%		97.2%		97.7%		114.0%

Gasoline Shipments Nearly Balance Increased Output

By Telegraph

TULSA, April 27

DUE to a sharp increase in the crude runs of refiners in north and central Texas the 124 refineries in the Mid-Continent field from which National Petroleum News gathers weekly operating figures, failed to reduce their stocks of gasoline the week ended April 23. The 41 Texas plants embraced in the report increased their crude runs 11,600 barrels per day or 21.4 per cent bringing the average still charges up to 65,664 barrels per day.

As a result of the increased runs Texas gasoline production increased 1,300,000 gallons over the previous week's production and stocks in that state increased 1,100,000 gallons. North Louisiana and Arkansas refiners increased their crude runs 2500 barrels daily average and their gasoline stocks 300,000 gallons.

Oklahoma and Kansas refiners continued to draw on their stocks of gasoline as they have virtually every week for nearly two months. The 46 Oklahoma plants reduced their gasoline stocks nearly 1,000,000 gallons in spite of the fact that shipments were 700,000 gallons less than in the preceding week. Kansas refiners cut their stocks 400,000 gallons. The withdrawals of these two states almost balanced the increase reported from the more southern districts.

Kerosene stocks continued to decline during the week, being cut 700,000 gallons. They now represent less than a week's supply. Slight additions were made to stocks of heating distillate, gas oil, and fuel oil.

Summary for the Month

Production and shipments, all reporting refineries, for four weeks ended Apr. 23. Change in stocks figured from Mar. 26.

Gasoline

	Gallons
Production	120,276,322
Shipments	126,117,155
Net change in stocks	—5,840,833
Ratio sales to production	104.9%

Kerosene

	Gallons
Production	19,920,793
Shipments	23,218,815
Net change in stocks	—3,298,022
Ratio sales to production	116.6%

Stove Distillate

	Gallons
Production	6,341,717
Shipments	6,964,042
Net change in stocks	—622,325
Ratio sales to production	109.8%

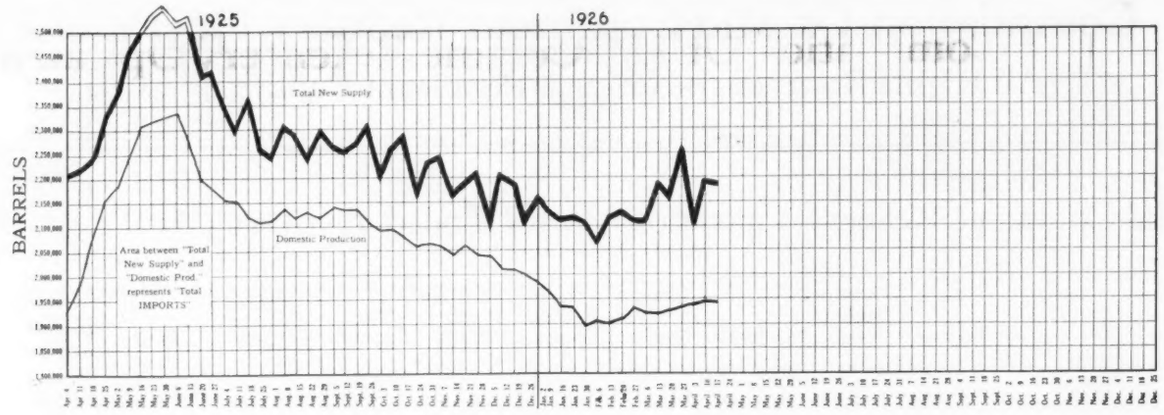
Gas Oil

	Gallons
Production	21,251,232
Shipments	17,412,166
Net change in stocks	+3,839,066
Ratio sales to production	81.9%

Fuel Oil

	Gallons
Production	108,338,642
Shipments	111,508,050
Net change in stocks	—3,169,408
Ratio sales to production	102.9%

Daily Average Crude Oil Production and Imports



Crude Production by Districts

Daily average gross crude output of United States, by fields, for week ending with dates given below, as compiled by American Petroleum Institute

OKLAHOMA

	April 24	April 17
North Braman	2,350	2,350
South Braman	10,350	9,500
Blackwell	3,950	3,950
Hubbard	1,850	1,850
Thomas	5,300	5,200
Tonkawa	37,200	37,800
Garber	34,600	33,150
Burbank	41,200	41,750
Osage, outside Burbank	32,950	32,900
Watchorn	2,450	2,450
Cushing	21,900	21,900
Yale Jennings	16,650	16,100
Davenport	15,600	17,050
Bristow-Slick	29,950	30,200
North Okmulgee	17,800	17,900
Lyons-Deaner	4,250	4,250
Stroud	2,400	2,350
Cromwell	18,200	18,500
Papoose	12,350	12,300
Wewoka	34,900	31,650
Duncan district	7,250	7,350
Graham	9,600	9,500
Fox	4,200	4,100
Headlton	14,900	14,850
Hewitt	12,200	12,150
Others	67,800	67,600
Total Oklahoma	462,150	458,650
Increase		3,500

* * *

KANSAS

Florence-Covert	1,700	1,750
Peabody-Elbing	4,300	4,350
Eldorado-Towanda	13,850	13,900
Augusta-Fox-Bush	3,750	4,750
Rainbow Bend	4,800	4,900
Russell	5,350	5,400
Greenwood County	42,400	41,750
Others	26,650	25,350
Total Kansas	102,800	102,150
Increase		650

NORTH LOUISIANA

Homer	5,750	5,800
Haynesville	10,250	10,250
Caddo, light	8,700	8,550
Caddo, heavy	2,300	2,200
De Soto, Red River	3,900	3,950
Elm Grove	600	600
Bellevue	2,600	2,600
Cotton Valley	8,550	8,350
Urania	8,850	8,150
Total North Louisiana	51,500	50,450
Increase		1,050

ARKANSAS

El Dorado	7,400	7,400
Smackover, light	17,550	17,950
Smackover, heavy	133,400	135,200
Stephens	1,550	1,550
Nevada	3,000	3,000
Lisbon	7,800	6,250
Total Arkansas	170,700	171,350
Decrease		650

* * *

NORTH TEXAS

	April 24	April 17
Burkburnett	12,350	12,300
Electra	16,250	16,200
Iowa Park and K-M-A	4,450	4,450
Wilbarger	12,850	12,850
Panhandle	8,700	8,200
Petrolia	500	450
Archer County	31,600	31,150
Others	2,000	2,000
Total North Texas	88,700	87,600
Increase		1,100

EAST CENTRAL TEXAS

Mexia	13,300	13,400
Currie	1,100	1,050
Richland	1,700	1,700
Corsicana-Powell	30,300	30,550
Wortham	9,350	9,400
Total East Central		
Texas	55,750	56,100
Decrease		350

WEST CENTRAL TEXAS

Stephens County	13,350	13,450
Eastland County	5,950	5,950
Desdemona	2,650	2,650
Young County	7,650	7,850
Palo Pinto County	500	550
Callahan County	3,400	3,450
Shackelford County	2,750	2,750
Reagan County	33,800	34,800
Others	9,500	10,000
Total West Central		
Texas	79,550	81,450
Decrease		1,900

* * *

SOUTHWEST TEXAS

Luling	22,950	22,650
Mirando	6,600	6,600
Somerset	2,150	2,150
Lytton Springs	7,200	6,850
Piedras Pintas	250	250
Others	600	650
Total Southwest Texas	39,750	39,150
Increase		600

GULF COAST

Goose Creek	8,950	8,850
Hull	18,050	18,300
Saratoga	1,150	1,200
Blue Ridge	450	450
Damon Mound	900	900
Batson	1,150	1,200
West Columbia	8,700	9,400
Humble	3,750	3,550
Pierce Junction	1,300	1,300
Sour Lake	4,050	4,050
Spindletop	3,850	4,350
Orange County	11,400	11,650
Edgerly	1,100	1,100
Evangeline	1,100	1,100
Vinton	6,250	6,250
Lockport	4,150	2,650
South Liberty	5,900	6,000
Big Creek	1,150	1,100
Boling	8,800	3,850
Others	1,350	1,250
Total Gulf Coast	93,500	88,500
Increase		5,000

* * *

ROCKY MOUNTAIN

Wyoming

	April 24	April 17
Salt Creek	52,550	55,200
Grass Creek	2,900	2,800
Elk Basin	600	600
Big Muddy	3,500	3,400
Lost Soldier	4,250	4,250
Rock River	3,100	3,000
Teapot Dome	1,150	1,350
Others	4,550	4,650
Total Wyoming	72,600	75,250
Decrease		2,650

Montana

Cat Creek	2,950	2,950
Sunburst	18,500	18,500
Total Montana	21,450	21,450

Colorado

Moffat (Craig)	2,800	2,900
Fort Collins	2,900	2,650
Florence	400	400
Others	500	500
Total Colorado	6,600	6,450
Increase		150

New Mexico

Artesia	3,000	3,000
Hogback	450	450
Rattlesnake	450	500
Total New Mexico	3,900	3,950
Decrease		50
Total Rocky Mountain	104,550	107,100
Decrease		2,550

* * *

CALIFORNIA

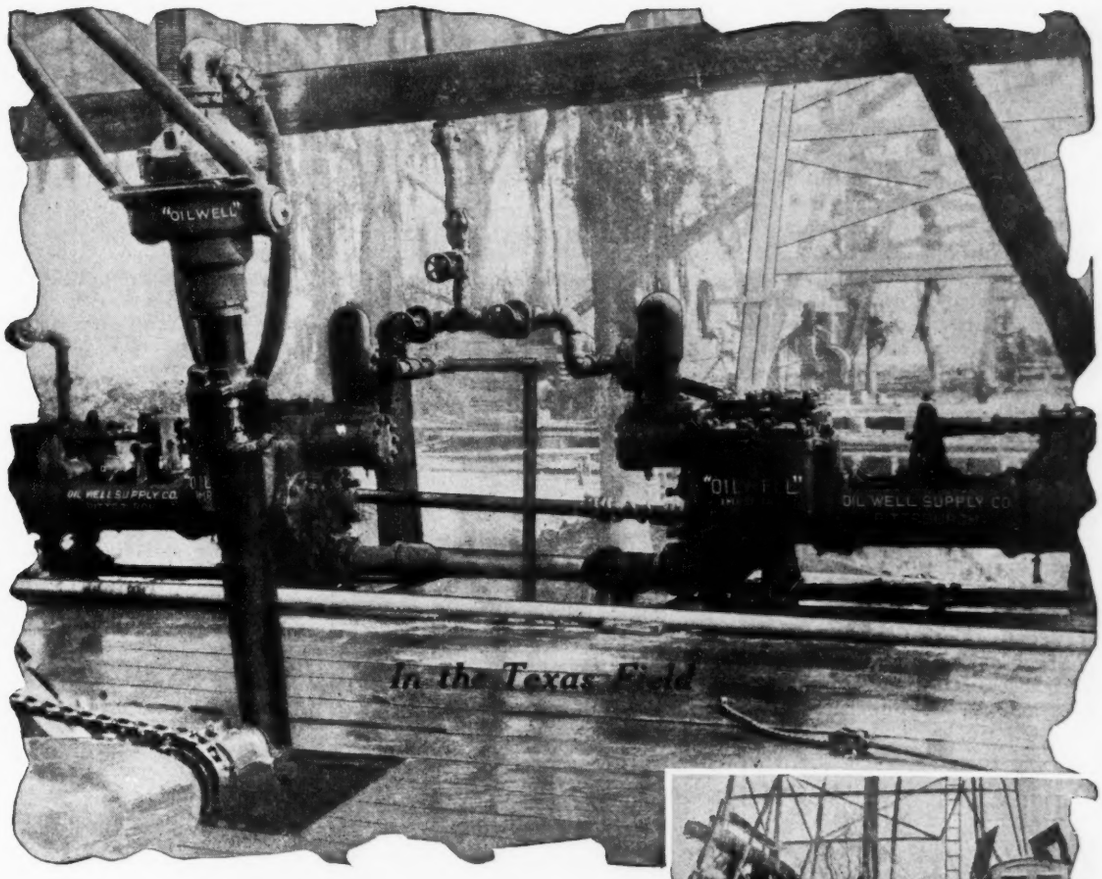
	April 24	April 17
Santa Fe Springs	49,000	49,000
Long Beach	105,000	103,000
Huntington Beach	45,500	45,500
Torrance	27,500	28,000
Dominguez	21,000	21,500
Rosecrans	18,500	18,000
Inglewood	53,000	51,000
Midway-Sunset	93,000	93,000
Others	192,000	187,000
Total California	604,500	596,000
Increase		8,500

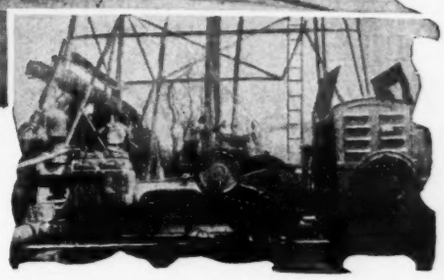
EASTERN

(Including Ill., Ind., Ky., Ohio, W. Va., Pa., and N. Y.)	102,500	101,500
Increase		1,000

Production Summary

Production east of Rockies	1,351,450	1,344,000
Increase		7,450
Total Production in U. S.	1,955,950	1,940,000
Increase		15,950





"OILWELL" Power Driven Imperial "Giant Mud Hog" Pump, in the Texas Field. 100 H.P. Waukesha 4 cylinder motor.

Good "MUD HOGS" are now made better-

Wherever Rotary Drilling is practiced, "OILWELL" "Mud Hog" Pumps have always been known as — *Good* "Mud Hogs."

In the Imperial "Mud Hogs" now being furnished, the Good "Mud Hogs" are made better because:—

1. The valve caps are held by means of studs.
2. The piston rod stuffing boxes are replaceable.
3. The liners are held in place by adjusting screws which permit tightening of liners from the outside of the cylinder heads.
4. The cradle has been strengthened.
5. More and larger studs are used.

The Imperial "Mud Hog" Pump is designed for a working pressure of 500 lbs. and the Imperial "Giant Mud Hog" Pump for a working pressure of 1,000 lbs.

Both pumps can be furnished in steam driven or power driven types.

Send for bulletins Nos. 62 and 64, or inquire at any of our 100 Branches.

"OILWELL" EST'D 1862 TRADE MARK (REGISTERED)

OIL WELL SUPPLY CO.

NEW YORK—LOS ANGELES—PITTSBURGH, U.S.A.—SAN FRANCISCO—TAMPICO—LONDON

WORLD'S OLDEST AND LARGEST MANUFACTURERS OF OIL FIELD EQUIPMENT

Borden Quits Purchasing Agents Association

TULSA, April 24.—O. V. Borden, who was recently elected secretary of the Tulsa Purchasing Agents association for the seventh consecutive term, has resigned from that office, and will devote himself to the publication of his new oil paper, "The Oil Field Man", the first issue of which appeared about a month ago. E. R. Welch, who has been Borden's assistant for some time past, is now filling the position of secretary.

E. A. Cook, purchaser for the Twin State Oil Co., was elected president of the purchasing agents association for the ensuing year. Mr. Cook has long been prominent in the affairs of the association both local and national, and for the past year has been regional vice-president of the national association, and first vice-president of the Tulsa association.

A. J. Edwards, of the Oklahoma Power Co., was elected first vice-president after serving a term as second vice-president. C. E. Good, purchaser for the Barnsdall Corp., is the new second vice-president. National directors from the Tulsa association are George C. Pohler, purchaser, Mid-Continent Petrolum Corp., and V. C. Fuller, Purchaser, Gypsy Oil Co.

The Blame Is Ours

Editor,
National Petroleum News,

In the "Bearish Chronicle of Some Bulls," published in the issue of National Petroleum News for April 21, in conclusion No. 5 near the top of the first column on page 93, the linotype has made the statement that "already some of our crooks" etc. This word was written "cooks," which, it will be seen, fits the context.

The author, while feeling that some members of the industry may be somewhat "bullish" particularly in regard to future supply, wishes to be relieved of the burden of attributing crookedness to any part of the industry, and to express his innocence of doing so either mentally or typographically.

Your truly,
AUTHOR OF THE BULL STORY

Export Kerosene Advance

NEW YORK, April 27.—On April 27 Standard Oil Co. of New Jersey advanced prices of kerosene for export ¼ cent per gallon in cases.

Gaines, Pa. Crude Raised

OIL CITY, Apr. 27.—On Apr. 27 Joseph Seep Purchasing Agency advanced the price of Gaines district crude 15 cents per barrel, to $3.10. Last previous change was 25 cents advance on Nov. 23, 1925.

Shipments from Los Angeles Week Ended April 24

	Crude	Gasoline	Gas Oil	Fuel Oil	Tops	Kerosene	All Products
Atlantic Domestic	244,500	141,508	118,451	293,493	.....	.....	797,952
Atlantic Foreign	89,429	74,690	.....	489,003	.....	.....	653,122
Pacific Domestic	545,126	46,000	.....	152,611	.....	.....	753,737
Pacific Foreign	42,000	.....	.....	105,618	.....	.....	147,618
Total Shipments Week Ended April 24							2,352,429
Total Shipments Week Ended April 17							2,215,630
Total Shipments Week Ended April 10							2,492,772

Ships Clearing for Atlantic Coast

Samuel Q. Brown to Bayonne, with 73,881 barrels of fuel for Tide Water Oil Co.

E. T. Bedford to Bayonne, with 118,451 barrels of gas oil for Standard of New Jersey.

Swiftsure to Fall River, with 77,000 barrels of crude for Swiftsure Oil Co.

John D. Archbold to Bayonne, with 139,019 barrels of fuel oil for Standard of New Jersey.

Swifteagle to Fall River, with 76,000 barrels of crude for Swiftsure Oil Co.

Francis Powell to Philadelphia, with 81,508 barrels of gasoline for Atlantic Refining Co.

Cities Service Petrol to Bayonne, with 91,500 barrels of crude for Cities Service Refining Co.

J. W. Van Dyke to Philadelphia, with 60,000 barrels of gasoline for Atlantic Refining Co.

Sunbeam to Baltimore, with 80,593 barrels of fuel oil for New England Oil Co.

J. F. Nagle has been appointed to succeed F. W. Burford in charge of bulk sales of refined products for the Skelly Oil Co. at Tulsa. Mr. Burford recently resigned to become vice president of the Crystal Refining Corp. at Shreveport.

Oil Field Electrification

Debatable though it still is in some of its phases, electrical operation of oil fields is making steady advances all over the country.

Next week an official of a large power company which supplies current to an important district of California will present an analysis of operating costs on properties electrically operated. He is able to make the article a comprehensive one because of the large territory represented in the figures to which he has access.

The article was written exclusively for National Petroleum News.

Michigan Jobbers Gather In Lansing May 6

Staff Special

GRAND RAPIDS, April 26.—The Michigan Independent Oil Men's Association will hold its spring convention at the Hotel Downey in Lansing, the capital of the state, on May 6, one day only. According to a statement published by Secretary James A. Gilmore in Flash Points, the association's official organ, there will be no set program. It will be a day of business discussions. The oil men have a number of important "irons in the fire" in Michigan, so the business on hand will likely keep them busy all day. There might even be an evening session, it is rumored.

Among other things, the kerosene inspection litigation will come up for final disposition. The oil men will decide whether they will continue or drop the case about to be taken to the supreme court of the United States.

Lago Plans Vote Rights For All Its Stock

NEW YORK, April 24.—Lago Oil & Transport directors have called a special meeting of stockholders for May 1 to vote on a proposal to eliminate the present stock classification and to create one class of voting stock of which it is expected to issue 4,000,000 shares.

It is said in New York financial circles that this action is being taken to overcome objections of the New York Stock Exchange in the limited voting provisions of the present A stock and to get the stock listed.

OMAHA, NEB.—The Standard Oil Co. of Nebraska recently purchased two filling stations from Mr. Oldfather, one at Brady Island and the other at Maxwell, Neb.

Mid-Continent Traffic Managers to Meet At Time of Fifth Gasoline Convention

TULSA, April 26

PETROLEUM traffic managers of the Mid-Continent field will hold a meting at Tulsa on May 5 in connection with the annual convention of the Association of Natural Gasoline Manufacturers. The meeting will be held at the Mayo hotel at 10:30 a.m. with A. F. Winn, traffic manager of the Skelly Oil Co., acting as chairman.

While a large part of the docket will be occupied with subjects of special interest to the traffic managers of natural gasoline manufacturers, invitations are being issued to all refinery traffic managers to attend. The docket for the meeting embraces the following subjects:

1. Calibration of tank cars.
2. Loading of natural gasoline.
3. Regulations governing shipment of inflammable goods. This will include a discussion of the subjects considered at the Interstate Commerce Commission meeting at Washington held on April 19.
4. Penalty storage charges on inflammable goods stored in private cars on private tracks prior to the tariff amendment of February, 1924.
5. Placarding of tank cars.
6. Railroad tank car repair bills.

To Discuss Rate Situation

7. The general freight rate situation. This will include a discussion of the general cases which are now before the Interstate Commerce Commission which directly affect the Mid-Continent shipper.

8. Tank car vapor saving devices. This will include a discussion of the device developed by Emby Kaye of the Skelly Oil Co., the device of S. B. Osborn of the Kansas City Steel Car Co., Tank Car Gauge Co. of Pittsburgh and the A. Y. McDonald Manufacturing Co.

9. Readjustment of the present method of carriers in dividing mileage earnings on tank cars when movement commences on one line during the last two days of one month and is extended into the next month for completion.

10. Establishment of a uniform method of handling payments of mileage and reports by railroads.

11. Basis of payment of freight on outage claims.

Members of the traffic committee of the Association of Natural Gasoline Manufacturers are A. F. Winn, Skelly Oil Co.; C. R. Musgraves, Phillips Petroleum Co.; W. W. Klingensmith, Transcontinental Oil Co.; C. F. Dowd, Tidal Refining Co.; F. E. Burke, Chestnut & Smith Corp.; S. B. Crooks, Empire Gasoline Co.; and A. C. Holmes, Empire Refineries Inc., ex officio member.

All sessions of the convention of the Association of Natural Gasoline Manufacturers are open to any person interested in the industry. A. V. Bourque, secretary, invites visitors to join in the open discussions of various topics which will be before the meeting. Visitors will be welcomed at the annual banquet which will be a dinner dance on the closing evening of the convention. Following is a complete program for the meeting:

Touring the Wildcats

Most people take an automobile trip for the scenery. Paul Wagner, production analist on National Petroleum News staff, picks one for the number of wildcat wells and new oil territory he can visit. A ride of 100 or 200 miles to be the first oil writer to gaze upon a new wildcat rig is nothing to him.

His first article from a trip he is now taking through new territory in Texas and New Mexico will appear May 5. His second article is on the wildcat test on the Bell Ranch in San Miguel County, New Mexico. From there he will jump to Artesia, then to Carlsbad, finally back through the southwestern part of Texas.

He will tell the status of these new tests, something of the structure, what companies hold acreage and so on.

Program for Fifth Annual Convention Association of Natural Gasoline Manufacturers

Mayo Hotel, Tulsa.

May 5 and 6, 1926.

10 a.m. Wednesday, May 5.

Address of Welcome, F. L. Chase, vice-president, Lone Star Gas Co.

President's Address, E. L. Peck, general manager, Empire Gasoline Co.

Report of Gas Testing Committee, George P. Bunn, Assistant Superintendent, gasoline department, Phillips Petroleum Co.

Appointment of Nominating Committee for officers and directors.

10:30 a.m.

Meeting of Oil Traffic Managers.

"Depreciation and Depletion," A. B. Morris, appraisal engineer, Chestnut & Smith Corp.

Afternoon Session, 2 p.m.

Discussion led by George S. Winters, auditor, Phillips Petroleum Co.

"Research on Absorption Oil," Arthur L. Davis, chief chemist, Empire Refineries, Inc. Discussion led by A. F. Maxson, engineer, Sun Oil Co.

"Characteristics of Natural Gasoline as a Non-Detonating Agency," A. Ludlow Clayden, research engineer, Sun Oil Co. Discussion led by L. F. Bayer, vice-president, Tidal Refining Co.

10 a.m. Thursday, May 6

Business meeting.

Secretary-treasurer's report.

Report of nominating committee.

Election of officers and directors.

"Industrial Solidarity," W. R. Boyd, Jr., Assistant general secretary, American Petroleum Institute.

Discussion led by D. E. Buchanan, vice-president, Chestnut & Smith Corp.

Afternoon Session, 2 p.m.

"Economic Value of Natural Gasoline to Refiner," Dr. E. R. Lederer, vice-president Texas-Pacific Coal & Oil Co.

Discussion led by S. C. Carney, research engineer, Roxana Petroleum Corp.

"Relation of Volatility to Acceleration and Antiknock Qualities," Drs. E. H. Leslie and G. G. Brown, professors of chemical engineering, University of Michigan. (Paper read by Dr. Brown.)

Discussion led by G. G. Oberfell, Research Department, Phillips Petroleum Co.

Night Session, 7 p.m.

Dinner dance (informal).

Toastmaster, J. A. Veasey, chief counsel, Carter Oil Co.

Principal speaker, C. C. Herndon, vice- president Skelly Oil Co.

Standards for Tubing and Working Barrels Ready for Final Action

PROGRESS in the oil field standardization program by committee work since the Los Angeles annual meeting of the American Petroleum Institute is being reported by National Petroleum News, for the benefit of the production branch of the industry generally, prior to further action by the committees at the Colorado Springs mid-year meeting June 15, 16 and 17.

This article takes up pumping equipment and engines. Other subjects will follow. Any suggestions from the industry generally may be made to Carl A. Young, director of standardization, at the Dallas office of the institute.

TULSA, April 23

WORK OF the special committee of the American Petroleum Institute on standardization of pumping equ pment and engines has progressed far enough to warrant the hope that final decisions will be reached at the mid-year standardization conference in Colorado Springs, June 15 to 17. This is brought out in the report on the committee's work by W. L. McLaine, of the General Petroleum Corp., Los Angeles, national chairman.

The committee's recommendations on tubing were adopted by the board of directors of the Institute, subject to approval and review by certain of the district sub-committees not represented at the Los Angeles meet ng last January. After getting agreement of these districts and of the Pipe Manufacturers' sub-committee, the national committee intends to put the tubing recommendations into specification form, similar to the tables issued for A. P. I. standard casing, and to place them in general circulation as soon as possible.

The committee's recommendations as to working barrels, which work has reached the point where it is ready for final adoption, were also adopted by the board of directors. These recommendations also w'll be drafted into specification form and put into general circulation. District chairmen will receive copies of these specifications prior to their publication.

Sucker Rods

VARIOUS dimensions of sucker rods are recommended as A. P. I. standard, in sizes ⅝-inch, ¾-inch, and ⅞-inch. With the exception of the form of thread to be used, this marks the completion of the standardization of this class of equipment. Those present at the Los Angeles meeting of the committee were unable to come to an agreement as to the proper form of thread, and a committee of three producers and three manufacturers was appointed to arrange for tests of sucker rod joints to settle the argument.

The operators' committee, at the Dallas conference last summer, recommended the Whitworth thread for sucker rods, but the manufacturers' committee contended that the United States Standard form of thread should be used. They argued this form of thread is commonly used on all rod and bolt work and is logically adapted for use on sucker rods. It is probable that an agreement will be reached on this question at the Colorado Springs meeting.

FINAL specifications for A. P. I. standard tubing joints for regular and external upset tubing were adopted at the Los Angeles meeting. In a brief resume of the conferences leading to this final adoption, the report of the committee says: "At the Dallas meeting it was recommended the California sub-committee be invited to place before the Los Angeles meeting recommendations for tubing joints which experience in deep wells had shown would be required by California operators. This sub-committee studied the recommendations of the Dallas meeting and designed a joint using these recommendations as far as possible.

"A few important differences were noted, however, and it was decided that the proposed California joint be referred to the manufacturers for consideration.. ....It was finally agreed to adopt 11½ threads on all 2-inch, 2½-inch, and 3-inch plain tubing and 10 threads on all upset tubing of the same diameters. The California group preferred the heavy weight 10.5-pound, 3-inch plain tubing to the 8.5-pound, but agreed to specify the latter as A. P. I. Standard with the understanding that the tube companies would supply tubing as in the past but with the A. P. I. joint. The Mid-Continent group recognized the merit in the preference of the California committee for long threads on plain tubing. They believe this joint will eventually be found more satisfactory than short thread tubing in the Mid-Continent, as deeper wells are operated. It was agreed that the recommendations for longer threads and therefore longer couplings cannot do any harm, but are a move in the right direction, and therefore adopted."

Engines

FINAL adoption was made by the committee at the Los Angeles meeting of standard sizes of foundation bolts for all makes of gas engines, the recommendations having been made by the manufacturers' committee. The same size bolts are adopted for 25 and 30 h.p. engines, and for 35 and 40 h.p., while certain bolts are the same size for the 25, 20 and 35 h.p. types.

The committee recommended that the flange connections for reversible clutches on gas engines up to and including 35 h.p. be 12 inches in diameter; that these flanges have bolt circles 10¼-inches in diameter and be drilled with six holes for ⅞-inch bolts; that the male projection on the flywheel clutch flange be 3/16-inch and six inches in diameter for all engines up to and including 35 h.p., and that for 40 h.p. engines it be 3/16-inch and seven inches in diameter; that the depth of the recess on the female side of the flange be ¼-inch for all sizes up to and including 40 h.p. engines.

The committee recommended that the matter of standardization of horse-power ratings of gas engines be referred to the manufacturers with the idea of developing a uniform method of rating. The report of the committee had the following to say on this subject:—

"Experience has shown that gas engines advertised and sold as 40 h.p. engines, for example, will vary as much as 50 per cent in power and with price variations of even greater amounts. A few of the large oil companies run brake tests on gas engines at different speeds and plot power curves which show the power of these engines at all speeds. Small operators, however, are not in position to make these tests, and for that reason must buy engines on the information supplied by salesmen. This situation, obviously, is unsatisfactory because an operator who has not made brake tests is at a loss to know whether the high-priced engines of a stated horse-power are enough stronger than lower-priced engines of the same stated horse-power to warrant his paying the extra money."

Working Barrels

AT last summer's meeting at Dallas, the operators had recommended certain tolerances for diameters of cold-drawn working barrels, but the manufacturers requested that these tolerances be slightly increased. Where the Dallas meeting had decided on tolerances of plus or minus .006 inch, this was increased and a final tolerance of plus or minus .008 inch was adopted at the Los Angeles meeting. This tolerance applies equally to the three sizes of working barrels, the 2-inch, with inside diameter of 1.785 inches, the 2½-inch, with inside diameter of 2.250 inches, and the 3-inch, with inside diameter of 2.750 inches.

On machined working barrels, the tolerances recommended by the Dallas meeting were confirmed and adopted by the Los Angeles meeting. This is minus 0 and plus .001 for each of the three sizes, the 2-inch, with inside diameter of 1.750 inches, the 2½-inch, with inside diameter of 2.250 inches, and the 3-inch, with inside diameter of 2.750 inches. For cold drawn working barrels, the committee accepted the recommendations of the manufacturers' committee as to lengths of barrels.

Fourth "Regular" Sand Is Opened With Big Well in Salt Creek Field

By Lawrence E. Smith
N. P. N. Staff Writer

CLEVELAND, O., April 24

A WELL flowing 5500 barrels in 24 hours would attract tremendous attention in a new territory. In a developed field, however, such a well opening a deeper sand, though it is in effect starting a new field, seldom quickens greatly the pulses of operators.

In the Salt Creek field of Wyoming, a well in the northwest quarter of Sec. 35-40-79, had been pounding away for a long while. Some trouble there had been—about what falls to the lot of the average Salt Creek well. There was nothing about it to excite attention, except of those who knew what was being attempted.

On a day last week a few interested persons were at hand to see the drillers complete a long task. Some evidence in a former test had indicated that the completion should be gratifying to those who owned the lease.

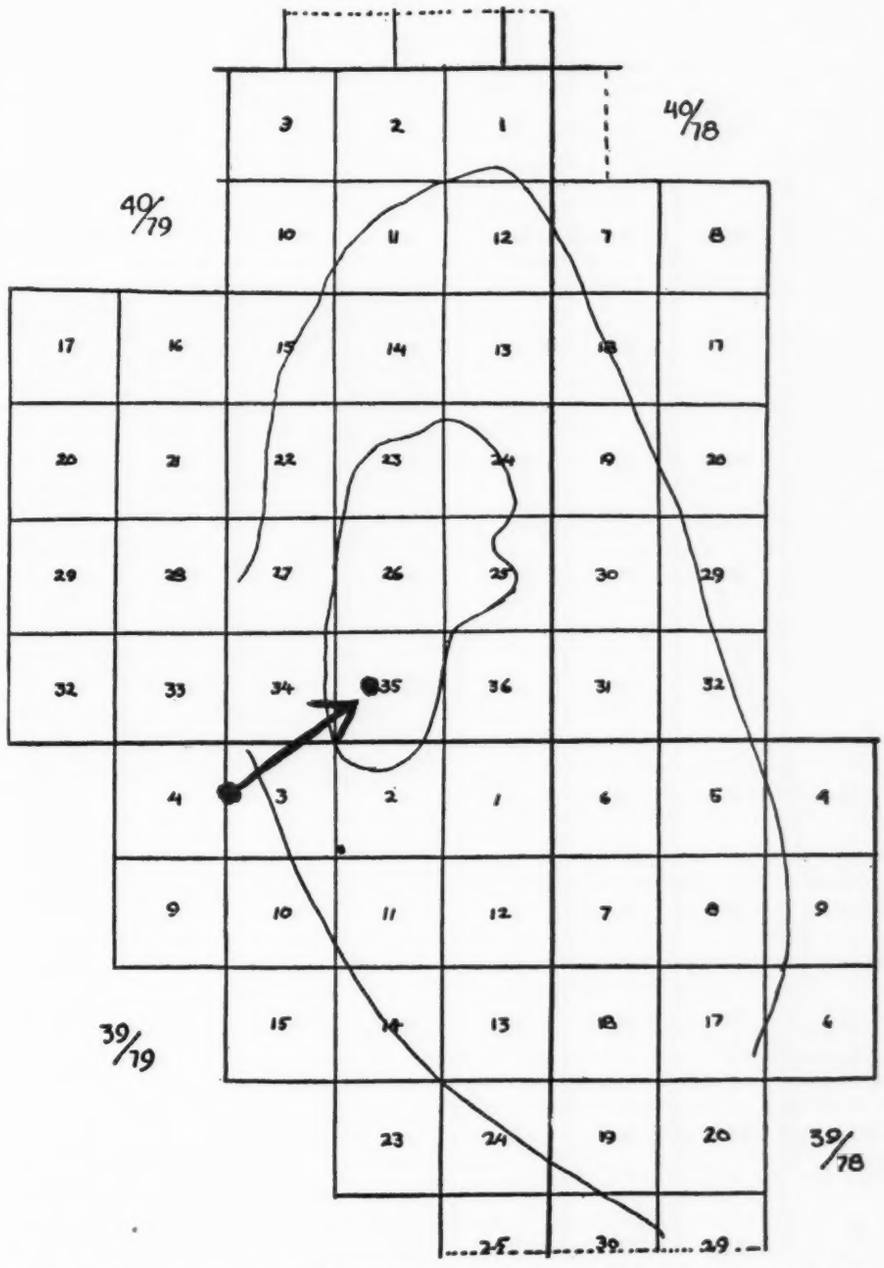
Preparations had been made to take care of the flow—if any. The well began to make some gas, then more. It began to spray oil. The spray increased. Still the driller stuck to the job. Finally the pressure was too great to permit further progress. The big flow had started. No. 34X had proved a new producing horizon for the field, had added to the already great reserves of deep sands in the fields and had done its part toward establishing Salt Creek as one of the great fields of all time.

The new well flowed 4462 barrels in the first 18 hours after completion and was stopped at 42 feet in the second Sundance horizon. When shut in it was flowing at the rate of 5500 barrels. This sand is of Upper Juraitic age. Top, in this well was found at 2828 feet. It is some 350 feet, approximately, from the bottom of the Lakota sandstone, previously the deepest producing formation in the field, to the top of the Sundance.

Mountain Producers Own It

"THEM as has, gets." The new well is located on acreage of the Mountain Producers Corp. This company is one of the so-called Midwest group. Others are Midwest Oil Co., Wyoming Associated Oil Co., Salt Creek Consolidated Oil Co., Salt Creek Producers Association. These companies own leases and fee acreage in the field. Midwest Refining Co. does not hold titles to the Salt Creek lands on which it is so extensive an operator. It holds operating contracts with all these others, does the drilling for them, manages the properties, buys the oil. To some it may appear at first to be a distinction without a difference, but, with their stocks listed on open markets, there is an element of public ownership in the companies named that is not present in the Midwest Refining Co., virtually 100 per cent controlled by the Standard Oil Co. of Indiana. The second word of the Midwest's name some time ago ceased to be applicable, for the company does not refine. It produces and purchases oil, although in the territory it still is customary to refer to the refineries of the Standard as Midwest plants.

THE companies named own the best part of Salt Creek. They should, for they were fathered by the men who first saw the possibilities of the field. Reference to the accompanying map will illustrate the situation. That part enclosed by the inner line is the territory which produces from the first Wall



Section map of the Salt Creek field showing location of well which proves the Sundance sand. Inner enclosure is productive area of first Wall Creek sand; outer line is limits of second Wall Creek. The Lakota, or third regular producing horizon, is about the same in area as the first Wall Creek sand.

Creek sand, shallowest pay horizon. The larger enclosure is the territory which produces from the second Wall Creek sand. Midwest operates all the upper sand wells; there are a number of competitors producing from the second sand, with Midwest affiliated companies holding the part most favorable structurally and, hence, more prolific.

The first Wall Creek sand originally was productive over an area of about 4500 acres; water encroachment has reduced this by about one-fifth. As the Lakota sand development stands now, it seems that its productive area will, in a general way, approximate that of the first Wall Creek sand; it cannot, on the basis of present development, exceed it.

A Sundance Failure

IT is idle to speculate on what Sundance sand will do. All there is to adjudge limits by is a test over in 6-39-78, drilled upward of three years ago by the Producers & Refiners Corp. It is supposed that this went through the Sundance and found a strong flow of water. The Lakota was also found unproductive and the well was plugged back to the second Wall Creek.

At any rate an important addition has been made to the reserves of the field. The new sand will not be exploited rapidly, in fact, the immediate program calls only for an offset to be drilled on lease of the Midwest Oil Co., to the south.

A surprising thing about the new find is that the Sundance sand where productive elsewhere in Wyoming yields heavy black oil or gas. The oil found in it in Salt Creek is of paraffin base, 36.3 gravity. It is a little better than Lakota oil, not quite as good as Wall Creek oil.

There remain other possibilities for deeper sand production in the field, such as the Embar, Tensleep and Amsden sands, all productive of heavy oil in other parts of Wyoming.

It was mentioned at the outset that Sundance sand production had previously been found in Salt Creek. That was in a Sec. 23 test. The yield was not notable.

A list of the wells other than the new one that have been drilled by the Midwest Refining Co. for production below the second Wall Creek sand, is as follows:

Lakota and Sundance Sands at Salt Creek

No. 34X, NW¼ 23-40-79, Lakota 2498-2552, 5974 barrels. Sundance 2896-2955, 31 bbls., T. D. 3070, plugged back to 2968.

No. 3L, SE¼ 23-40-79, Top of Lakota 2415, total depth 2497, still in sand, no test.

N. 13L, SE¼ 23-40-79, Lakota 2422-2482, total depth 2482, no test.

No. 19L, SE¼ 23-40-79, Top of Lakota 2460, total depth 2462, still in sand, no test.

No. 13L, SW¼ 23-40-79, Lakota 2450–2500, total depth 2508, 950 bbls.

No. 19L, SW¼ 23-40-79, Top of Lakota 2507, total depth 2529, still in sand, plugged back to 2525, no test.

No. 33L, SW¼ 23-40-79, Top of Lakota 2432, total depth 2441, still in sand, no test.

No. 34L, SW¼ 23-40-79, Top of Lakota 2430, total depth 2433, still in sand, no test.

No. 19L, SW¼ 24-40-79, Top of Lakota, 2410, total depth 2476, still in sand, 4455 barrels.

No. 31L, SW¼ 25-40-79, Lakota 2467-2482 and 2498-2505, T. D. 2512, plugged back to 2488, 173 barrels.

No. 7L, SE¼ 25-40-79, Lakota 2486-2500 and 2567-2642, T. D. 2642, still in sand, 350 bbls. oil, 1000 bbls. water.

No. 4L, SW¼ 26-40-79, Lakota 2445-2501, total depth 2519, no test.

No. 36L, NW¼ 26-40-79, Top of Lakota 2367, total depth 2369, still in sand, 105 barrels.

No. 24L, NE¼ 26-40-79, oil from sand shale in Muddy horizon 2198-2303, total depth 2303, no test.

No. 6L, SE¼ 26-40-79, Lakota 2424-2466 and 2471-2482, total depth 2482, still in sand, 2894 barrels.

No. 36L, SE¼ 26-40-79, Lakota 2430-2443, total depth 2464, plugged back to 2442, 471 barrels.

No. 36L, NE¼ 27-40-79, oil from sandy shale in Muddy horizon at 2020, total depth 2045, 153 barrels.

No. 1L, SE¼ 27-40-79, oil from sandy shale in Muddy horizon at 2025, total depth 2090, 275 barrels.

No. 13L, SE¼ 34-40-79, Top of Lakota 2398, total depth 2442, still in sand, 2210 barrels.

No. 24L, SE¼ 34-40-79, Top of Lakota 2442, total depth 2491, still in sand, 1950 barrels.

No. 21L, NW¼ 35-40-79, Lakoto 2278-2290, and 2300-2317, total depth 2340, 435 barrels.

No. 33L, NW¼ 35-40-79, Lakota 2259-2306, total depth 2370, 3243 barrels.

No. 1L, NE¼ 35-40-79, Lakota 2447-2455, total depth 2502, plugged back to 2458, 215 barrels.

No. 6L, NE¼ 35-40-79, Lakota 2336-2372, total depth 2402, no test.

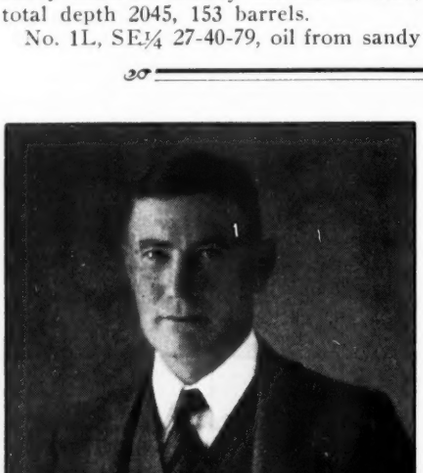
No. 4L, SW¼ 35-40-79, top of Lakota 2293, total depth 2310, still in sand, 60 barrels.

No. 18L, SW¼ 35-40-79, oil from Sandy shale in Muddy horizon, total depth 2082, 231 barrels.

No. 6L, NW¼ 36-40-79, Lakota 2485-2500, total depth 2525, plugged back to 2500, 237 barrels.

No. 15L, NW¼ 2-39-79, Top of Lakota 2532, total drilled depth 2532, blew in, no test.

No. 16L, NW¼ 2-39-79, Top of Lakota 2514, total depth 2558, still in sand, 1338 barrels.



J. A. Sartori, formerly superintendent of the West Tulsa refinery of the Producers & Refiners Corp., has been made general superintendent of refiners for the company. He now has three plants under his jurisdiction, one at Parco, Wyo., one at West Tulsa and one at Blackwell, Okla.

Court Reconsiders Case Of "Muny" Station

LINCOLN, NEB., April 24.—The Supreme Court of Nebraska has reconsidered the case of the Standard Oil Co. of Nebraska against the municipal filling station in Lincoln. The case was before the court again on April 23 at the request of Standard Oil Co. attorneys and the court is now holding the case on advisement.

Standard Oil Co. of Nebraska brought suit in the state courts about a year ago seeking injunction against the operation of a municipal gasoline station selling material at cost plus a nominal, arbitrary overhead. Lower courts disposed of the matter hastily, stating at the time that they hoped to hurry final decision in a matter which finally would require the opinion of the highest court in the state anyway.

Other state and municipal merchandising establishments in Nebraska have been overthrown with comparative ease in the past, but this was an unusually "hard nut to crack", because it was launched after the city of Lincoln had voted an amendment to its charter specifically authorizing the town to run a filling station and sell oil and gasoline at cost to the citizens. Thus the usual legal procedure, (attacking officials for overstepping their bounds of authority) was patently useless.

In the early part of March this year the Supreme Court decided the case in favor of the municipality of Lincoln. Independents in Nebraska had attacked the station in Federal court about a year before and were unsuccessful. The marketing situation in Nebraska looked mighty dark until the Supreme Court consented to review the matter.

Charles M. Sutherland, secretary of the Nebraska Independent Oil Men's Association, reports that the court had many pertinent questions to ask, at the hearing on the afternoon of April 23, and that new phases of the recent decision and its possible effects were brought out.

Ohio Oil Co. Enters Mexico to Drill On Large Northern Concession

By Lawrence E. Smith
N. P. N. Staff Writer

CLEVELAND, O., April 24

NEWS of expansion of scope, increase of activity, contained much that pertained to the Ohio Oil Co. during the past week. As the bringing to fruition of plans long considered, it is made known that the Ohio company will—

Enter Mexico to test territory far from previously developed territory.

Start a test in the state of Washington.

Begin at once the expansion of its Lincoln Oil Refining Co., located at Robinson, Ill., to capacity of 5000 barrels daily, thoroughly modernizing the plant.

The Ohio, long-established as a leader in producing oil, has never before left the borders of the United States to acquire producing properties or to drill wildcat tests. One of the early producing subsidiaries of the original Standard Oil Co., it drilled and operated wells in the old Lima field of Ohio—original scene of its endeavors—Indiana and Illinois. It exercised authority over these fields as a large buyer of crude oil.

After dissolution decree of the U. S. Supreme Court, the Ohio found itself, like many of the other Standard units, theoretically directing its own destiny and relying upon its own resources. Presently that ceased to be a theoretical situation and the company struck out in various directions to perpetuate its successes. It entered Wyoming, then Kentucky, Texas, Louisiana, Arkansas, Montana, New Mexico, Oklahoma and Kansas. In the latter two states and in Texas it operates as the Mid-Kansas Oil & Gas Co.

First Foreign Venture

UNLIKE many of the large companies it had all this time made no visible effort to acquire foreign reserves. Its entry into Mexico, therefore, is a significant event in the history of the company.

The territory which the Ohio will test is in the state of Coahuila, which abuts the state of Texas along a meandering, extensive stretch of the Rio Grande river. Across from Coahuila are Texas towns of Eagle Pass and Del Rio, to name the better known ones. Coahuila is a vast state, being some 400 miles north to south at the extreme length and more than 200 miles east and west at its widest place.

The concession which the Ohio will test is scattered over the state in a number of parcels and consists of some 4,000,000 acres. It was acquired from the republic authorities by the Hoffer Oil Corp., associated with Senator T. S. Hogan, of Montana, Leslie Parker, of Denver, and others. T. B. Hoffer, head of the Hoffer company, formerly head of the Fensland Oil Co., was one of the principal negotiators.

Concessionary title to all this acreage came from the republic by reason of 1917 amendments to the Constitution, which nationalized mineral resources. As this is an original grant by the government of operating rights to a mineral not yet discovered at this location, retroactivity of the Article 27, much discussed for several years and subject of recent state department notes, is not an issue here. The government asserted title some years ago to sub-soil resources involved in the Ohio-Hoffer tracts and as they then had no claimants other than the persons owning the surface rights, the question is simple, as compared to the developed fields of the Tampico region where company investments threaten to be upset by government assertion of title.

Geological Work Under Way

HOFFER et al acquired the concession some six months ago, so the "trade" with the Ohio moved rather rapidly for such an extensive deal. Extensive geological investigation, under direction of C. J. Hares, chief geologist of the Ohio, has been under way for a number of weeks and is still proceeding.

In negotiating with the Hoffer interests, J. C. Donnell, founder of the Ohio Oil Co. and president of the company throughout its career, played leading part. Of the "old school" with respect to pioneering, Mr. Donnell is distinctly of the "new school" in keeping up with the march of the industry; he even leads it here and there. His has been one of the most successful companies in the history of the industry. It has grown to present position by wise investment of earnings—no public financing has ever been done.

Immediately upon completion of preliminary geological work and with moving in of required materials, a test will be started on one of the blocks, probably the San Marcos. Headquarters will be maintained at Saltillo, which is in the southeast corner of the state and west of Monterrey, principal city of the region.

Under the laws of the Mexican republic the Ohio-Mexico Oil Corp. has been formed. It is understood that the Ohio has something like a 60 per cent interest and it will be in charge throughout. Two test wells are the immediate program.

Geological opinion does not hold that fields of the type which were found in the Tampico region will be found in northern Mexico, of which the state of Coahuila is a part. Rather, it is believed, the production if any, will be found under conditions more nearly resembling average Mid-Continent fields —anticlines of relatively gentle dip, sandstone horizons, water pressures of no great consequence. Development, if successful, would result in fields which would not be marked by high initial output, as were those of Cerro Azul, etc,. but would produce consistently over many years.

THE Ohio's decision to enter the state of Washington followed examination of acreage there by company geologists. Considerable acreage has been acquired in Thurston and Mason counties, inland some 60 miles from Grays ,Harbor on the Pacific Coast where some scattered tsting had been done. The first test will be located at the small town of Tonino, south of Olympia, the state capitol, which also is in Thurston county. This well is to be drilled at once and material is now moving in. Should it fail, another test will be put down elsewhere on the acreage.

Some activity is under way in Washington by other companies.. A number of holes have been drilled around Grays Harbor, Aberdeen and to the north, including deep tests by the Standard Oil Co. of California at the Moclips, several years ago. The latter tests are considerable distance from the Ohio's location, however.

Plant to Be Rebuilt

SOME two years ago the Ohio Oil Co. purchased the refinery at Robinson, Ill., known at that time and now as the Lincoln Oil Refining Co. Previously, it had been known as the Wabash plant of the Keystone Oil & Manufacturing Co. This plant has capacity of about 1200 barrels per day, has cracking plant of about 300 barrels capacity and lubricating plant. Cracking plant is of the Conerty type.

Additional land has been acquired at Robinson and work is getting under way at once to increase the refinery to 5000 barrels daily capacity. It is to be practically completely rebuilt and will be fitted with the latest design equipment. Cracking process will be installed. Early reports are that Holmes-Manley will be the process and that Cross pipe stills will be put in. Work will be completed, it is believed, by December 1.

The plant is located in an important distributing territory and in addition is near crude oil supply.

Trade Awaits News of High-Test Texaco Gasoline Program

Staff Special
CHICAGO, April 22

CHICAGO oil men believe The Texas Co. is about to begin selling high-test gasoline for the price of Red Crown through the territory where it markets. When approached on the subject, F. B. Wright, Chicago manager, smiles genially and mentions the spectacular advance in the tank car price of kerosene.

Officials of authority in other oil companies, whose business it is to keep themselves informed, state that an official communique has been broadcast from the New York offices of The Texas Co., to dealers and distributors far and near, instructing them to let their stocks run low and remain in readiness to fill their tanks with a new product. Rumor has it that in a few instances The Texas Co. has loaded gasoline from overstocked branch plants into tank cars and moved it back to the refinery in order to replace it before May 1 with different material.

The Texas Co. has not been selling a high test gasoline generally, at least not in this section. Notwithstanding some especially light material has already been dumped into certain garage dealers' and distributors' tanks in Chicago. The gasoline has come, at least, without any accompanying instructions to be sold at a higher price than the competitive grade material sold there previously. A sample of this material has been taken and shows a gravity test is better than 61.

The theory that The Texas Co. does not propose to begin handling two grades of gasoline in Chicago appears to be fairly well founded. The situation is that the company never went in for buildng filling stations in the city but has held rigidly to the policy of marketing its goods through tank wagon to re-sale agents who operate independently. These Independent dealers, service stations and garage operators, in a vast number of cases have only one tank and are not equipped to sell two grades immediately.

One intangible rumor is to the effect that The Texas Co. may use this superior grade of gasoline to combat the quantity discount agreement so generally used, and almost as generally abused, throughout Standard Oil Co. of Indiana territory. But this is only a speculation, for persons who have the right to discuss the matter will not be quoted.

Considerable romance is added to the story of The Texas Co.'s new 61 gravity gasoline by an "ingredient" which relates to its origin. A tale has been rather generally bantered about which says in substance that it is a product obtained with a new process of refining (a wrinkle on their cracking process) that effects a greater yield of gasoline from the crude run, besides making it all more highly volatile. But that, too, is fanciful and impossible to confirm.

All that is positively known about the matter is that the company's tank wagons are actually delivering a 61 gasoline to its customers now, and that an announcement of a change in policy may be expected momentarily.

U. S. Finds Tide Water Merger is Legal

WASHINGTON, April 24.—At this time the government sees no reason for trying to prevent the $240,000,000 merger of the Tide Water Oil Co. and the Associated Oil Co. of California. The Department of Justice, April 22, announced it had completed its investigation of the merger and found no facts warranting proceedings against the promoters of the companies under the anti-trust laws.

"The conclusions now expressed," said Attorney General Sargent, "concerning the Associated-Tide Water merger will not preclude the government from reconsidering the transaction should it appear later that it is in any way coupled with any other merger or series of mergers."

* * *

NEW YORK, April 24.—Concerning the approval of the Tide Water-Associated Oil merger, Paul Shoup, vice-president of the new consolidated company, said:

"The announcement of the Department of Justice to the effect that the Tide Water Associated Oil Co. on the basis of facts disclosed, no longer carries the burden of proceedings against it by the Government, is indeed gratifying to all concerned in the organizing of this new company through the affiliation of two long established and well known oil companies—the Tide Water and the Associated.

"All who have studied this important consolidation must be convinced that it will serve the public beneficially; for it promotes economy in operation, helps to place oil and its products in markets most needed with least cost in money and time, reduces the amount of oil unavailable through transit and storage conditions, gives increased facilities for resolving crude petroleum into products according to the nation's need—in short, provides conservation in the best possible way.

"The Associated Oil Company with its production and refineries on the Pacific Coast, the Tide Water with its refineries on the Atlantic and in the Mid-Continent and its production from Pennsylvania westward to Texas, the two with modern fleets of tankers and market facilities in different sections of the United States and the world, will, united, afford strengthened competition in its best form in the oil markets service when and where needed throughout a large part of the world at minimum cost through efficiency in operation."

Benzol Output Falling

CLEVELAND, April 26.—Benzol is not a petroleum product. The oil industry has known that always, but an Ohio court has just made the fact legal.

Establishment of the illegitimacy of benzol as a member of the petroleum family was made in an opinion of Judge Charles M. Rogers, court of common pleas, Franklin county (Columbus), in a suit brought by the state tax commission against Caldwell & Taylor, Cincinnati, distributors of benzol blend motor fuel, for $32,053 alleged to be due the state under the motor fuel tax law and $4,808 penalty.

The amount of taxes the state alleged was due, was on 1,602,694 gallons of benzol sold in a blend with gasoline. The firm paid taxes on the gasoline component of the blend and filed with the state tax commission a statement of the amount of benzol used but refused to pay tax on the benzol because in the Ohio tax law motor vehicle fuels are defined as "gasoline and all other volatile and inflammable liquids derived from petroleum, which are produced, refined, prepared, distilled, compounded or used for the purpose of generating power by internal combustion motors, by whatever name such fuels be known or sold. The term 'motor vehicle fuels', however, shall not include the product commonly known as kerosene oil."

It was argued by Clarence M. Smith and Charles M. Leslie, Cincinnati lawyers that represented Caldwell & Taylor, that benzol was a coal tar distillate, was not a petroleum product, and therefore was not subject to the motor vehicle fuel tax in Ohio. Judge Rogers ruled:

"The fact that the statute by express language declares that it defines motor vehicle fuels to include gasoline, etc., by its language limits the fuel to those liquids named in the act."

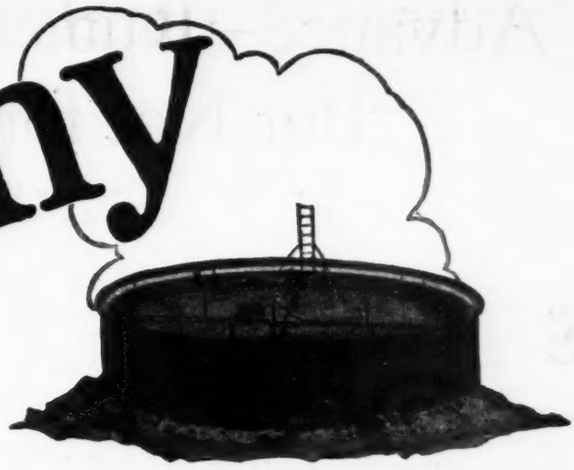
This ruling was to a demurrer filed in behalf of Caldwell & Taylor to the state's petition.

Attorney General C. C. Crabbe and Special Counselor Wilbur E. Benoy appealed the case April 24 on technical grounds.

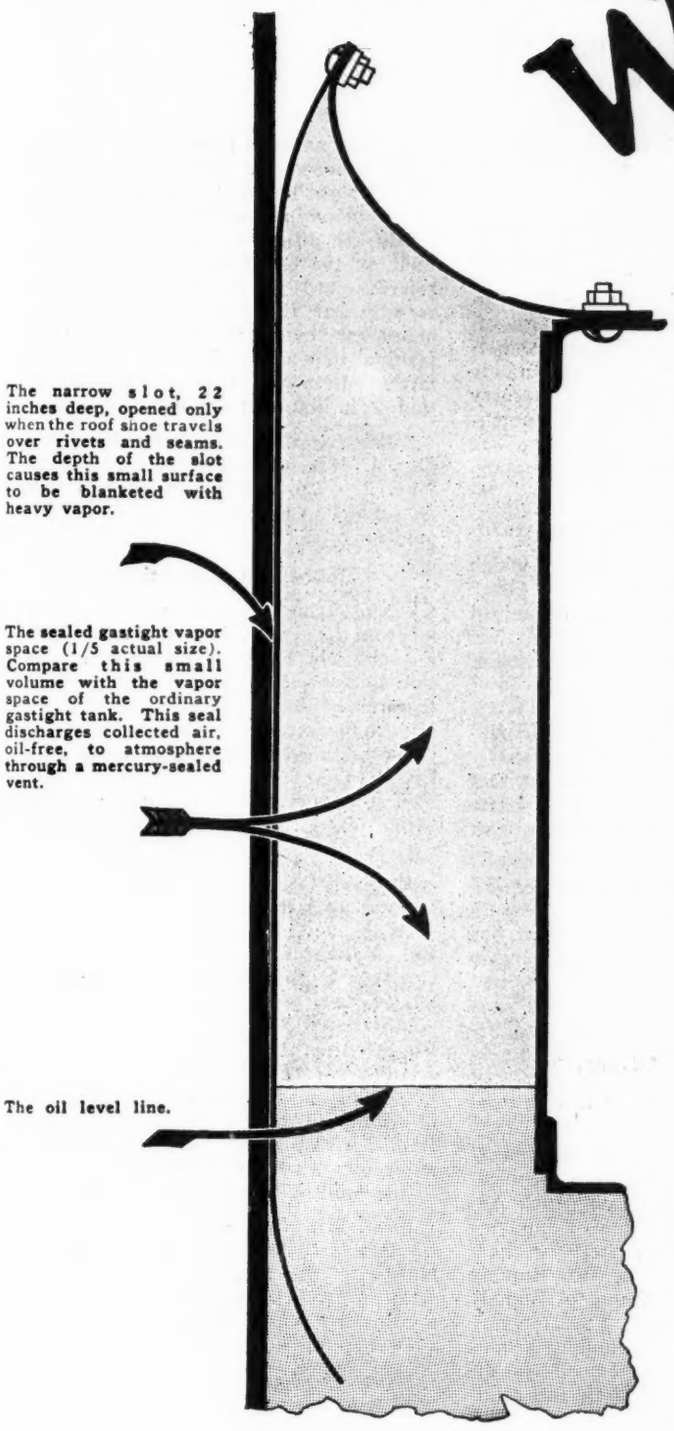
It is considered doubtful whether distributors of benzol blends in Ohio who have paid the motor fuel tax on benzol, even though it is not included as a motor fuel in the Ohio law, will be able to recover the taxes so paid. The law contains no provision for the recovery of taxes illegally paid, a member of the tax commission pointed out, but some of the larger distributors may seek recovery of taxs paid illegally but without protest, by litigation.

In the Caldwell & Taylor suit, Andress, Southworth, Wise & Maxin, Akron, appeared in behalf of the Benzol Motor Fuel Co., of Akron, as an interested party.

why



the Wiggins seal is gastight


The narrow slot, 22 inches deep, opened only when the roof shoe travels over rivets and seams. The depth of the slot causes this small surface to be blanketed with heavy vapor.
The sealed gastight vapor space (1/5 actual size). Compare this small volume with the vapor space of the ordinary gastight tank. This seal discharges collected air, oil-free, to atmosphere through a mercury-sealed vent.
The oil level line.

THE Wiggins Seal is gastight to effectively close the space between the pan of the roof and the tank side. If this space is not closed gastight, exaggerated evaporation conditions from this area decrease the effectiveness of a floating roof.

Next to a gastight sealed floating roof a gastight tank is the most effective evaporation prevention device. Its biggest drawback is thermal breathing.

Thermal breathing loss is proportional to the volume of the gastight area. Since the gastight volume of a Wiggins Seal on a 55,000 barrel tank is one per cent of the volume of a gastight tank. the breathing loss is reduced to a negligible amount. Thus gastighting is effective when applied to the space between the floating pan and the tank shell where the volume is very small.

The Wiggins Seal does more than practically eliminate losses through thermal breathing. It separates oil from air. Air bubbles entering the tank through the filling line entrain oil particles as they travel outward to the seal. There the shoe traps them into the gastight portion of the seal. As the air must travel circumferentially to reach a vent, all entrained oil is dropped back into the tank. The mercury-sealed vent which opens at one quarter of an ounce pressure releases the air—free of oil—to the atmosphere.

Equip your present tanks with Wiggins Roofs. And when contemplating new tanks, get our quotation on them equipped with Wiggins Roofs.

Chicago Bridge & Iron Works

Chicago: 2125 Old Colony Bldg.
New York: 3145 Hudson Terminal Bldg.
Cleveland: 2206 Union Trust Bldg.
Dallas: 1639 Praetorian Bldg.
Atlanta: 1050 Healey Bldg.
San Francisco: 1060 Rialto Bldg.

WIGGINS ROOF

Advance—Rumely Co. Sells Tractor Oil "But Not for Profit" They Say

By Ward K. Halbert
N. P. N. Staff Writer

CHICAGO, April 23

SINCE last October the Advance-Rumely-Thresher Co., Inc., of La Porte, Ind., has been marketing its own brand of lubricating oil through Rumely dealers in the middle and southwestern farming country.

Officials of the company state that the firm entered the oil business only to be sure that users of Rumely machinery could have the proper oil. They say they have not made a profit on their oil, and will be satisfied if they break even.

One of the company's chief products is the Rumely Oil Pull tractor. George W. Iverson, advertising manager of the company, says that the motor has high compression and runs hot. It is a kerosene burner and runs even hotter than most kerosene burners, which adds to the problem of its proper lubrication.

The Rumely tractor is of considerable importance to the oil industry as an outlet for specialized and, incidentally, high priced lubrication. Independent jobbers and compounders in districts where Rumely tractors are numerous have expended a great deal of time and money and expert research to help the farmer solve this lubrication problem. A few jobbers even have evolved an oil especially for lubricating Rumely tractors.

Unlike the Advance-Rumely people, the oil men admit that they did this in an honest effort to make money. A great many oil men have felt that this implement manufacturer was taking from them the just rewards of their work in itself handling and recommending lubricating oils.

Extensive Lube Business

THE La Porte factory turns out about 5000 tractors a year and the probable plan is to sell one barrel of oil to the farmer with each tractor—that would be upwards of 200,000 gallons a year. But in correspondence with refiners from whom the Rumely people have hoped to get their oils to sell to the farmers, Mr. Iverson has estimated his annual requirements at 500,000 gallons.

Whether the Advance-Rumely company expects to accept any profit on this volume of business or not, it would be possible to earn quite a neat little sum in that way, delivering a satisfactory oil for a Rumely tractor at the price they quote the farmers. In a little book of operating instructions published by the Rumely people (the booklet that goes out in the tool box of every tractor shipped from La Porte) is a list of oils which the manufacturers say are suitable for their tractors. In that list Extra Heavy Polarine among others is recommended for summer use in Rumely Oil Pull tractors.

Extra Heavy Polarine may be had for 68 cents a gallon, f. o. b. Whiting, Ind., and if the freight was 4 cents to destination the farmer could get it for 72 cents. But the Extra Heavy Oil Pull oil offered by the tractor manufacturer costs 85 cents. If it cost Advance-Rumely Thresher Co. 3 cents a gallon to carry the overhead on its oil department the net profit of 10 cents a gallon on 500,000 gallons is $50,000 for somebody, annually.

Regarding Specifications

TO handle their lubricants, which they have named "Oil Pull Oils," the Rumely people have not organized a subsidiary company, nor have they even created a special oil department. It is hard to tell just who is the head of the oil marketing business. Some think the idea originated with J. Abrams, the sales manager, but he has relinquished whatever honor was in that distinction to Mr. Iverson. The latter declines to give out the specifications of the oil they sell to the farming trade.

There are some specifications for Oil Pull oils in the hands of oil men in and around Chicago. Mr. Iverson has been dickering with several refiners in this neighborhood with a view to having them bid for his business. He says these specifications are for oils now being considered by the Advance-Rumely Co. but that no decision has yet been reached as to whether they will be used or not.

Under a separate heading accompanying this story are shown these specifications for oils and greases on which Advance-Rumely is asking the oil industry for quotations to make, pack for them in cans and drums, brand with Rumely brands and ship for them to Rumely dealers over the country. The company has no bulk plant, compounding kettles or barreling equipment. Its oils go direct to Rumely dealers from the refinery's loading platform.

Rumely officials decline to divulge the name of the refiner who is (or was until recently) making and shipping Oil Pull oils for them. Mr. Iverson lays stress upon the fact he is not under contract with any refiner and that his source of supply might be changed at any time, or that he might buy from more than one refiner.

In his contact with the oil industry, Mr. Iverson has met with quite a little opposition. His proposition has been rejected by three refiners with something like national distribution. He has been opposed for ethical reasons and also because he wants the refiner to assume many responsibilities that ordinarily are affairs of the jobber; not to mention the fact that he is a bear with reference to price. Rumely also demands that the refinery carry its account for extended periods after the fashion that credit is extended in the farming industry. For instance, stipulation 7 in its contract conditions says:

"Bills for all goods ordered prior to Oct. 1, 1926, shall be due and payable Nov. 1, 1926, and prices therein shall be subject to a discount of 2 per cent if paid on or before Oct. 1, 1926."

Jobbers in Competition

SINCE the sales campaign started from La Porte, jobbers in the farming districts have shown their opposition to the general principle of a manufacturer selling lubricating oil for his own manufactured product with the air of protecting his customers from inferior oil. One of the oil jobbers who early filed a protest with the Rumely organization was H. C. Wurster, Hawkeye Oil Co., Waterloo, Ia.

Probably the most vigorous campaigner against the movement has been Jack Nourse, head of the Nourse Oil Co., Kansas City. Mr. Nourse is exclusively in the lubricating oil business, has his headquarters in the heart of the southwestern farming district, where Rumely tractors are thick, and has made a specialty of lubricating them. The first thing he did was have a sample of Oil Pull oil tested in his laboratory. Armed with this information he took his story direct to the Rumely factory and to the field of competition at once.

First, Mr. Nourse sent out a letter to his own distributors who come in contact with the farmers and help them with their lubrication problems. He sent a copy of it to the Rumely factory with a letter to the Rumely people which said:

"Now, you people have started out with your own oil, putting it in upon the theory that the oil companies were not giving you the right kind of lubrication. And you are putting in oils with specifications which the experience of everybody in the oil business has proven absolutely will not do the business under normal conditions."

It is stated at the Rumely plant that the company's lubricating oil specifications were worked out by the company's own chemist and engineering department in collaboration with an independent chemist, and by practical tests.

Mr. Iverson says the Rumely Co., had

a great deal of trouble getting the correct oil for its motors before it started selling OilPull oils. He relates that in many small towns, well known quality lubricants are not sold, and, even where they are advertised, dealers are prone often to substitute cheap oil when the customer has specified what he wants.

"When congress or the state legislatures pass laws to make oil dealers deliver their customers the oil they represent to them, then we are no longer interested in the oil business," one of the Rumely officials stated on April 14.

"OilPull oils are sold through Advance-Rumely tractor dealers only," Mr. Iverson says, "and the company does not recommend OilPull oils to the exclusion of all other lubricants. Besides, the Advance-Rumely Co. does not compel its dealers to handle its oils. However," he added, "all of them have preferred to do so."

Advertising to the Farmer

THE Rumely officials are entirely consistent in saying they do not recommend OilPull oils to the exclusion of others. In their book of instructions that reaches the farmer via the tool box of his new tractor, 15 oils are recommended for use in Rumely tractors, of which 12 are not sold by Rumely. The list is as follows:

Suitable Oils

THE grade and quality of the oil in the motor are vitally important. After testing lubricating oils for several years, we have found that the oils listed below are satisfactory and suitable for oil pull tractors. We recommend the use of any of these oils or oils of equal grade and quality:

Extra Heavy Oil Pull Oil for Summer.
Heavy Oil Pull Oil for early Spring and Fall.
Medium Oil Pull Oil for zero weather.
Extra Heavy Polarine for Summer.
Heavy Polarine for Winter.
Mobiloil B for Summer.
Mobiloil A for Winter.
Heavy En-Ar-Co Oil for Summer.
Sinclair Opaline Oil for Summer.
Sinclair Opaline Liberty Aero Oil for Winter.
Sunoco Tractor Oil X Heavy for Summer.
Sunoco Tractor Oil X Heavy for Winter.
Zerolene Heavy.
Zerolene Heavy Duty Oil.
Mutual B Tractor Oil, Extra Heavy.

In spite of the fact the Rumely authorities acknowledge that the above oils and many others are alright to use in a Rumely tractor, they are selling their own products direct to the farmers by advertising. The medium used for this publicity is something of a cross between a "house organ" and a "circular." It is not a house organ, because it goes to customers rather than to employees. It goes out by direct mail but it has a paid circulation. The paper is called "The Oilpull Magazine" and it is distributed only to live tractor prospects.

The oil "ad" on inside of front cover of the magazine carries prices and sometimes pictures of the packages that OilPull lubricants are shipped in. There are to be six varieties of OilPull lubes; light, medium, heavy and extra heavy motor oils, a transmission oil and a cup grease. The price list is as follows:

	50-Gal. drum Per Gal.	30-Gal. drum Per Gal.	5-Gal. drum Per Gal.
Oil Pull Oil (Extra Heavy, Medium and Light)	$ .85	$ .90	$1.00
Oil Pull Oil Transmission	.65	.69	.80
	5-lb. pail (Per Pail)	10-lb pail (Per Pail)	25-lb. pail (Per Pail)
Oil Pure Lubricant	$1.00	$1.65	$3.75

Above prices include containers and are f. o. b. all U. S. branches except at Billings, Montana; Great Falls, Montana; Pocatello, Idaho; Spokane, Washington; Portland, Oregon, and San Francisco, California, where an advance freight charge equals to 7c per gallon on oil and 10% of the list price on lubricants will be added to care for higher freight rates.

Proposed Specifications for Rumely Oil and Greases

Specifications of Oilput Oils

	Light	Medium	Heavy	Ex. Heavy
Gravity—Minimum Baume A. P. I. scale	26.	25.	24.	22.5
Flash—Minimum degrees Fahr.	405	410	420	460
Fire—Minimum degrees Fahr.	455	465	490	525
Viscosity at 100 degrees Fahr.	200	350	800	1850
Viscosity at 210 degrees Fahr.	45	55	77	110
Carbon (Conradson) maximum	.05%	.5%	1.5%	2.00%
Color	NPA3	NPA5	Green	Green
Pour	0°	5°	10°	25°

The oil must be a straight mineral oil without the admixture of fatty oils, resins, soaps, water, or any compound not derived from crude petroleum. The oils listed above will be checked for specifications by the following testing methods, and in all references to methods these refer to the methods described under the corresponding number given in Technical Paper 323-A, Bureau of Mines, U. S. Department of Interior.

Flash and Fire Test: The flash and fire shall be tested in accordance with method 110.31.

Viscosity Test: The viscosity shall be determined with a Saybolt Standard Viscosimeter according to method 30.4.

Carbon Test: Carbon residue shall be determined by method 500.11.

Pour Test: The pour tests shall be conducted in accordance with method 20.11.

In addition to meeting the above specifications OilPull Oils must prove satisfactory in the following tests:

Corrosion Test: The oil shall not show any corrosion of copper when tested as in method 530.31.

Acidity Test: Not more than 0.04 mg. of potassium hydroxide shall be required to neutralize one gram of oil. This test shall be conducted according to method 510.3.

Emulsion Test: OilPull Oil in grades Light and Medium shall separate completely in thirty minutes from emulsions with the following solutions:

(1) Distilled water.
(2) 1 per cent salt solution.
(3) Normal caustic solution.

The above emulsion tests are to be made in accordance with method 320.11.

Grades Heavy and Extra Heavy shall separate completely in thirty minutes from emulsions with the following solutions:

(1) Distilled water.
(2) 1 per cent sale solution.
(3) Normal caustic solution.

The above emulsion tests on grades Heavy and Extra Heavy are to be made in accordance with method 320.21.

Demulsibility Test: The demulsibility of all grades shall be less than 300. The determination of the emulsibility of Light and Medium OilPull Oils shall be made in accordance with method 320.31. The demulsibility of the Heavy and Extra Heavy OilPull Oils shall be made in accordance with method 320.41.

Specifications for OilPull Transmission Oil

Baume Gravity 16
Flash point, degrees Fahr. not less than 375
Fire point, degrees Fahr. not less than 430
Viscosity at 210 degrees Fahr. not less than 160

The oil must be a straight mineral oil without the admixture of fatty oils, resins, soaps, water, or any compound not derived from crude petroleum. The oil must also prove satisfactory in the following tests:

Corrosion Test: The oil shall not show any corrosion of copper as determined by method 530.31.

Acidity Test: Not more than .15 mg. of potassium hydroxide shall be required to neutralize one gram of the oil as determined by method 510.3 (A.S.T.M. D-47-21).

The flash, fire and viscosity tests shall be conducted in the same manner as described on OilPull lubricating oils.

Specifications for OilPull Lubricant

Shall be soft at 0° Fahr.
Melting point, minimum degrees Fahr. 180
Viscosity at 100° Fahr. ..... 75 sec.
Water content, maximum 6%
Ash content, maximum 1.7%
Lime soap content, including water and ash, maximum 19.%

The oil used in OilPull Lubricant must be a straight mineral oil without the admixture of resins or graphite. The lubricant shall contain no free alkali or filler other than lime soap.

Corrosion Test: The oil shall not show any corrosion or discoloration of a clean polished copper plate when sub-

merged in the oil for 24 hours at room temperature, or when submerged for three hours at 212 per cent Fahr. The copper plate submerged must be rinsed with sulfur free acetone and must be as bright in appearance as a similar strip of freshly polished copper.

Water Content: The water content in OilPull Lubricant shall be determined by method 300.11. (A.S.T.M. D-95-23-T).

Acidity: The free fatty acid calculated as Oleic Acid shall not exceed 1/10 of 1 per cent.

Acidity Test: 10 grams of the grease are weighed into the flask and dissolved in cold 68° Be' gasoline by shaking the grease and gasoline thoroughly. After sufficient time has elapsed for the solution of the grease, the clear gasoline solution is filtered off. The residue is then again treated with gasoline and the gasoline from this treatment filtered and added to the original extract. The gasoline is evaporated from the combined extracts and the residue from the evaporation taken up in hot neutral alcohol and titrated with N/100 sodium hydroxide solution.

Cup Grease

1. The grease shall be a well-manufactured product composed of a calcium soap made from high-grade animal or vegetable oils or fatty acids, and a highly refined mineral oil.

2. The mineral oil used in reducing the soaps shall be a straight well refined mineral oil with a viscosity at 100° F. of not less than 100 seconds.

Soap Content: No. 3 cup grease shall contain approximately 18 per cent of calcium soap.

Consistence: This grade shall be similar in consistence to the approved trade standards for No. 3 grease.

Moisture: Method 300.11. The grease shall be a boiled grease, containing not more than 3 per cent of water when finished.

Corrosion: A clean copper plate shall not be discolored when submerged in the grease for 24 hours at room temperature.

Ash: No. 3 grease: The ash shall not be greater than 2.3 per cent.

Fillers: The grease shall contain no fillers such as resin, resinous oils, soapstone, wax, talc, powdered mica or graphite, sulphur, clay, asbestos or any other filler.

Officers of the Natural Gasoline Manufacturers Association

President

E. L. Peck, Mgr. Empire Gasoline Co., Bartlesville, Okla.

Vice-Presidents

F L. Chase, Operating Mgr., Lone Star Gas Co., Dallas, Tex.; F. E. Rice, Gen. Supt. Gasoline Dept., Phillips Petroleum Co.; A. M. Ballard, Mgr. Gasoline Dept, Twin State Oil Co.

Secretary-Treasurer

A. V. Bourque.

Directors

B. A. Whitney, Gen. Supt. Gasoline Dept., Transcontinental Oil Co.; H. R. Johnson, Sec.-Treas., Akin Gasoline Co.; Emby Kaye, Gen. Supt. Gasoline Dept., Skelly Oil Co.; L. F. Byer, Gen. Mgr., Tidal Refining Co.; M. E. Mockley, Gen. Supt., Gasoline Dept., Amerada Petroleum Corp.; John M. Hall, Gen. Mgr., Oil State Gasoline Co.; A. J. Schlosser, Gen. Supt., Gasoline Dept., Barnsdall Oil Co.; J. W. Hurley, Gen. Mgr., Hurley Gasoline Co.; R. I. Short, Mgr., Casinghead Gas Dept., Prairie Oil & Gas Co.; H. A. Trower, Sales Mgr., Phillips Petroleum Co., Bartlesville, Okla.; H. G. Ellis, Gen. Mgr., Amity Gasoline Co., Bartlesville, Okla.; R. R. Owen, Gen. Supt. Gasoline Dept., Marland Refining Co.; O. H. Schoenwald, Mgr. Gasoline Dept., Wentz Oil Co., Ponca City, Okla.; E. R. Lederer, Vice-Pres., Texas-Pacific Coal & Oil Co., Fort Worth, Tex.; C. W. Mullalley, Arkansas Fuel Oil Co., Shreveport, La.; Kenyon L. Reynolds, Vice-Pres., Pacific Gasoline Co., Los Angeles, Cal.; James B. Weir, Pres., Falling Rock Cannel Coal Co., Charleston, W. Va.; J. A. Rafferty, Vice-Pres.-Gen. Mgr. Carbide & Carbon Chemicals Corp., New York.

Change in Handling of Tank Cars Postponed

WASHINGTON, April 26.—American Petroleum Institute attorneys have brought about a postponement of a move made by the Interstate Commerce Commission in regard to the specifications for the tanks and their appliances on the thousands of tank cars, the significance of which the lawyers do not know.

Fayette B. Dow, W. R. Boyd and R. P. Anderson, representing the Institute, at a conference between themselves, representatives of the commission and the Bureau of Explosives of the American Railway Association, persuaded the representatives of the commission and of the railroads to make no recommendations to the commission on the proposal of the latter that it take over from the railway association, the work of formulating and promulgating specifications for the tanks and their appliances.

That proposal was made by the commission, in what looked like a routine way, on April 12. At the same time it said it would hold a hearing on the subject April 21. At the same time it said Col. B. W. Dunn, chief of the Bureau of Explosives would confer with representatives of shippers on the subject the day before the hearing with a view to reducing to a minimum, the points of disagreement between the railroads and the shippers in respect of the proposal about tanks on tank cars and other subjects docketed for consideration at the hearing.

The conference on the subject was an embarrassing one for the reason that Colonel Dunn had made no proposal to have the work of making specifications for tanks and their appliances transferred from his Bureau, where it has been for more than twenty years, to the Commission. The proposal came from the commission. He, like the oil people, was more in the nature of a defendant than of a complainant.

M. F. Crass of the Grasselli Chemical Co., a shipper that uses many tank cars for chemicals, acting with the representatives of the Institute and of the units in the industry suggested that the matter be held up until the shippers particularly interested could find out what the move meant. They said they were not sure they wanted to oppose the move but added that they would surely like to know why the methods that had been followed for more than 20 years were to be changed, almost without notice.

As explained by the commission men, unofficially, for they were not empowered to say what their superiors had in mind, the move was made on the ground that the transportation of dangerous articles act requires the commission to formulate and promulgate specifications and regulations and that, while it had allowed the specifications of the American Railway Association to stand, that was not a compliance with the law.

Pipe Line Is Extended

CROSS PLAINS, TEX., April 24.—The Prairie Pipe Line Co., has completed a 16-mile extension of its 6-inch line to the Gwinnup & Greice's No. 1 J. C. DeBrell, in northeast Coleman county.

Skelly Oil Co. is putting in a new gasoline plant about 18 miles southwest of Cross Plains.

The Canyon Oil & Gas Co., headed by Tom Bryant, has recently completed an electric power station on its 1500-acre J. W. Harris lease, seven miles southwest of Cross Plains.

Sinclair Operations Gain in 1925; $1.01 a Share Is Netted

By Roger B. Stafford
N. P. N. Staff Writer

CLEVELAND, April 24

AFTER operating in the "red" in 1923 and 1924, Sinclair Consolidated Oil Corp. last year earned $6,002,793 in excess of all charges and reserves. This amount, after dividends on the preferred stock totalling $1,455,474, was equivalent to $1.01 a share on the no par common stock. The corporation suffered a deficit of $2,149,267 on its 1924 operations and one of $1,289,049 in 1923.

Sinclair's business increased in every particular except its operation in Mexico, where its production declined more than 50 per cent. The summary of the year's producing, refining and marketing operations as given by Chairman Harry F. Sinclair to the stockholders follows:

Sinclair Consolidated Oil Corp. Consolidated Income Accounts

	1925	1924	1923	1922	1921
Gross earnings, misc. income	$159,544,216	$123,894,049	$107,592,665	$131,016,745	$122,529,187
Expenses	130,599,569	107,467,119	94,156,161	100,072,952	111,743,875
Net income	$ 28,944,647	$ 16,426,930	$ 13,436,504	$ 30,943,793	$ 10,785,312
Interest, discounts, etc	7,731,734	6,036,137	3,435,880	4,435,809	5,633,756
Balance	$ 21,212,913	$ 10,390,793	$ 10,000,624	$ 26,507,984	$ 5,151,556
Deprec., deplet., amort	15,210,120	12,540,060	11,289,673	11,746,241	12,038,334
Net Profit	$ 6,002,793	*$ 2,149,267	*$ 1,289,049	$ 14,761,743	*$ 6,886,778
Preferred dividends	1,455,474	1,512,990	1,571,172	204,381	21,232
Common dividends	.....	4,486,385	8,970,999	4,329,094	.....
Surplus	$ 4,547,319	*$ 8,148,632	*$ 11,831,220	$ 10,228,268	*$ 6,908,010

*Deficit.

Concerning strictly financial matters, Mr. Sinclair said:

"From 1925 earnings, your corporation's funded debt and purchase money obligations were reduced $3,376,360, outstanding preferred stock was reduced $688,900, net current assets were increased $2,318,347 and in excess of $12,000,000 was invested in the development of new production of crude oil, acquisition of undeveloped oil leases, additional casinghead gasoline plants, extension of marketing facilities and terminals, principally in the eastern and southeastern states, and a small amount in refineries."

The increase in the business of the corporation which began last year is continuing in 1926, Mr. Sinclair said, and he added that indications "point to increasing prosperity" during the remainder of 1926.

	1925	1924
Net crude produced in U. S. (Bbls.)	9,058,709	6,175,325
Net crude produced in Mexico (Bbls.)	4,475,345	9,841,832
Net natural gasoline production (Gals.)	22,134,578	19,045,633
Crude run to gasoline and lube stills (Bbls.)	20,048,306	14,940,090
Crude run through asphalt plant (Bbls.)	5,807,013	3,579,225
Recovery of gasoline from crude actually used in gasoline manufacture	60.7%	51.1%
Gasoline sold (Gals.)	601,938,164	462,767,096
Cargo oil transports exclusive of Cuban intercoastal and barge deliveries (Bbls.)	17,561,024	15,638,131
Sinclair Pipe Line Co. deliveries (Bbls.)	28,971,93[illegible]	25,956,421
Sinclair Crude Oil Purchasing Co. stocks Dec. 31 (Bbls.)	38,079,761	42,395,626

Sinclair's gross business last year increased almost 30 per cent over 1924 gross and net operating income was almost 75 per cent larger than 1924 net operating income.

The balance sheet of Dec. 31 shows current assets of $51,246,222 against current liabilities of $18,629,532. Net working capital as of Dec. 31 for the last five years has been:

1925	$32,616,689
1924	30,298,342
1923	26,762,738
1922	61,646,126
1921	60,622,264

While total assets on Dec. 31, 1925, stand at $351,912,759 compared with $431,347,163 on Dec. 31, 1924, the seeming shrinkage is due to a slight change in method of drafting the balance sheet. Instead of carrying depreciation and depletion reserve accounts among the liabilities, the reserves have been deducted from the property account which, in the accompanying comparative balance sheet form, is net for 1925 and gross for the other four years.

The gross value at which Sinclair carried its property on Dec. 31 was $327,142,484 against which was carried depletion, depreciation and amortization reserves of $96,052,505.

Sinclair Consolidated Oil Corp. Consolidated Balance Sheets as of Dec. 31

	1925	1924	1923	1922	1921
ASSETS					
Real estate, plant, leases, pipe lines, etc.	‡$231,089,979	$314,284,384	$291,052,553	$253,094,583	$243,555,676
Investments	60,163,788	60,035,238	63,737,573	48,457,539	30,637,745
Insurance funds	1,601,201	1,511,002	2,235,050	2,036,307	220,855
Cash	5,798,935	6,174,807	7,999,607	29,458,558	6,232,640
Accounts, notes rec	13,381,153	11,028,921	9,585,387	11,925,775	28,738,362
Employes stock subs	508,701	920,118	979,951	.....	.....
Inventories	27,635,606	24,304,688	23,564,717	25,382,957	22,244,868
Advance payments, oil etc	471,647	419,325	810,513	.....	.....
Marketable securities	† 3,450,180	3,763,522	4,219,580	3,608,045	8,759,149
Deferred charges	7,811,569	8,905,158	8,180,869	5,265,694	2,034,258
Total	$351,912,759	$431,347,163	$412,365,800	$379,229,458	$342,423,553
LIABILITIES					
Common Stock*	$204,197,841	$204,052,441	$204,052,411	$204,052,440	$193,018,441
Surplus	15,423,646	10,876,327	19,349,795	30,904,178	27,114,190
Preferred stock	17,852,000	18,541,100	19,278,600	20,000,000	322,400
Minority int. in subs	109,790	109,790	109,990	110,090	110,090
Deprec. deplet., amort. res	.....	85,148,177	70,690,881	60,578,467	50,464,882
Insurance, other res	2,769,822	.....	.....	.....	.....
Funded debt	90,954,500	93,307,500	73,973,000	50,000,000	45,441,600
Purchase money oblig	1,975,428	2,998,787	4,514,074	4,855,074	4,736,952
Oil, gas certificates	.....	.....	.....	.....	1,114,139
Notes payable	2,000,000	3,600,000	11,600,000	.....	11,075,000
Accounts payable	14,228,542	9,878,378	6,522,924	6,740,970	5,801,455
Accruals, etc	2,405,991	2,834,662	2,274,095	1,988,239	2,286,908
Suspended earnings, unadj. cr	.....	.....	.....	.....	935,496
Total	$351,912,759	$431,347,163	$412,365,800	$379,229,458	$342,423,553

*Represented by 4,499,162 shares of no par common stock.
†Includes $861,720 bonds and stocks of Sinclair Oil Corp. at cost.
‡After depreciation and depletion.

S. O. California Employes Buy 494,516 Shares

CLEVELAND, April 24.—When the Standard Oil Co. suspended its stock investment and savings plan for employes on Jan. 1 because of the consolidation of that company and the Pacific Oil Co., 12,508 employes were participating and trustees held 494,516 shares or 5.2 per cent of the total capital stock outstanding. The stock represented credits by employes' savings, company deposits and dividends of $26,499,673.25.

The average monthly subscription of the 12,508 employes was $33.30 or 87.7 per cent of the maximum to which they were entitled under the plan. The plan terminates its five-year period on May 31 and stock will be distributed shortly thereafter, President K. R. Kingsbury announced. It was not announced whether the plan would be resumed.

Fig. 108
Screwed, Jenkins Standard Bronze Angle Valve.

Fig. 370
Screwed, Jenkins Standard Bronze Gate Valve.

Freedom from frequent "fixing"

A valve doesn't earn its keep if it has to be fixed all the time. Frequent repair means labor spent and time lost.

See the Jenkins "Diamond" on the valves you install. This mark is a guarantee of freedom from frequent fixing and expensive replacements.

Jenkins Valves are built with the added strength to take care of severe strains. Tests made at the Jenkins factory require each valve to pass a service test under conditions which allow a wide margin of safety.

When so ordered, valves are furnished specially packed and specially tested for oil service, obtainable through supply houses everywhere.

JENKINS BROS.

80 White Street *New York, N. Y.*
524 Atlantic Avenue . . Boston, Mass.
133 No. Seventh Street . Philadelphia, Pa.
646 Washington Boulevard . Chicago, Ill.
JENKINS BROS., Limited
Montreal, Canada *London, England*

Always marked with the "Diamond"
Jenkins Valves
SINCE 1864

Perhaps tomorrow— Who knows?

PERHAPS tomorrow, or the next day—you'll want to refer to back prices "in a hurry" . . . and find the very issues of N. P. N. with those prices missing . . . and you'll have to call on the telephone or write a letter to get those back prices.

In the OIL PRICE HANDBOOK and Refinery Directory published by National Petroleum News, you can put your finger on any crude, refinery, tankwagon or export price for 1924 and 1925 instantly. A whole year's oil markets in one handy volume—indexed so you can get any back price at a glance.

The 1924 OIL PRICE HANDBOOK costs $3.75. The 1925 price-volume contains 15 more pages of prices and statistics than the 1924 book and costs $5. Both books are cloth bound, marginal index, complete for each year.

Order these time-and-money savers *today*. Only a limited number of these price-books have been printed.

NATIONAL PETROLEUM NEWS

810 Caxton Bldg. **Cleveland, Ohio**

Pan-American Buys More Eastern Stations

Staff Special

TULSA, April 24.—Distributing properties of the Transcontinental Oil Co. in the Pittsburgh district have been sold to the American Oil Co., it was announced here today by F. B. Parriott, president of the Transcontinental. The properties were taken over by the new owners on April 22.

The American Oil Co. is a subsidiary of the Pan American Petroleum & Transport Co. which was recently taken over by the Standard Oil Co. of Indiana.

A few months ago the New York distributing properties of the Transcontinental were sold to Independent interests in that area. By its present sale the Transcontinental has disposed of virtually all of its distribution in the east. The Pittsburgh offices of the company will be continued as bulk sales offices only to sell the tank car trade.

Transcontinental recently moved its general offices from Pittsburgh to Tulsa and is consolidating its properties into a compact group which can be operated to the best economic advantage. In place of its eastern distribution the company is building up a station system in the southwest. Last year the company purchased a number of stations in the vicinity of its refinery at Bristow from the Rollestone and Freeland interests of that city. Today the company opened its first filling station at Tulsa which has been built on the corner of Sixth and Boston, near the center of the business district.

New Exploration Firm

TULSA, April 24.—McMahon, Kimball and Wosk is the name of a firm recently organized to engage in exploratory operations in the Mid-Continent. The firm hopes through detailed subsurface studies to discover some new pools in deeper sands underlying present producing areas. The firm is composed of H. S. McMahon, Kent K. Kimball and L. B. Wosk. Mr. McMahon has been employed by the Gypsy Oil Co. for the past four years, the latter portion of which time he was engaged in core drill operations. Mr. Kimball has been on the geological staff of the Mid-Kansas Oil & Gas Co. during the past two years. For five years prior he was on the U. S. Geological Survey. Mr. Wosk resigned from the U. S. Bureau of Mines to join the new firm. Offices have been opened at 405 National Bank of Commerce Building, Tulsa.

TULSA.—D. L. Mitchell, president of the Fuel Oil Co. of Detroit, spent Friday of this week in Tulsa on business before going to Texas. He probably will visit the refiners in Louisiana and Arkansas before returning to Detroit.

Petroleum Committee of A. I. M. E. Represents All Sections

Staff Special

CLEVELAND, O., April 24

AMONG methods put into effect to broaden the scope in the oil industry of the American Institute of Mining and Metallurgical Engineers is the appointment of executives of oil companies as well as engineers and geologists to serve as committeemen.

The list, announced by F. Julius Fohs, chairman of the petroleum division of the A. I. M. E., is considerably longer this year than it was in 1925 and includes representatives from various branches of the industry. It is as follows:

A. W. Ambrose, production engineer, Empire Companies, Bartlesville, Okla.

W. E. Badger, vice-president, Illinois Pipe Line Co., Findlay, Ohio.

Amos L. Beaty, chairman of the board, The Texas Co., New York City.

R. D. Benson, formerly chairman of the board, Tide Water Oil Co., New York City.

A. D. Brokaw, consulting geologist, Brokaw, Dixon, Garner & McKee, New York City.

Charles B. Buerger, general manager, Gulf Refining Co., Pittsburgh, Pa.

D. S. Bushnell, (vice-chairman, petroleum division, A. I. M. E., for transportation) president, Buckeye Pipe Line Co., New York City.

E. P. Campbell, production engineer, Pure Oil Co., Tulsa, Okla.

E. M. Clark, director, Standard of New Jersey, New York City.

E. W. Clark, vice-president, Union Oil Co., Los Angeles, California.

George S. Davison, president, American Society of Civil Engineers and president, Gulf Refining Co., Pittsburgh, Pa.

E. L. DeGolyer, first vice-president, A. I. M. E.; president, Amerada Petroleum Corp., New York City.

T. G. Delbridge, chief of research department, Atlantic Refining Co., Philadelphia, Pa.

H. C. Dickinson, U. S. Bureau of Standards, Washington, D. C.

Henry L. Doherty, Henry L. Doherty & Co., New York City.

Gustav Egloff, director of research, Universal Oil Products Co., Chicago, Ill.

Robert S. Ellison, vice-president, Midwest Refining Co., Casper, Wyo.

E. L. Estabrook, production engineer, Pan-American Eastern Corp., New York City.

W. S. Farish, president, American Petroleum Institute and president, Humble Oil & Refining Co., Houston, Texas.

Charles Fitzgerald, general superintendent, Pure Oil Pipe Line Co., Dallas, Texas.

F. Julius Fohs, (chairman, petroleum division, A. I. M. E.); vice-president, Humphreys Corp., New York City.

David M. Folsom, assistant to president, General Petroleum Co., San Francisco, California.

H. R. Gallagher, vice-president, Shell Co. of California, San Francisco, California.

James H. Gardner, (vice-chairman, petroleum division, A. I. M. E., for production) president, Gardner Petroleum Co., Tulsa, Okla.

Frank A. Herald, (chairman, Mid-Continent section, petroleum division, A. I. M. E.) Herald Brothers, geologists, Tulsa, Okla.

H. H. Hill, chief petroleum engineer, U. S. Department of Commerce, Washington, D. C.

R. C. Holmes, president, The Texas Co., New York City.

A. E. Humphreys, president, Humphreys Corp., Denver, Colorado.

E. W. Isom, vice-president, Sinclair Refining Co., New York City.

Joseph Jensen, (chairman, Southern California section, A. I. M. E., petroleum division) geologist, Associated Oil Co., Los Angeles, California.

K. R. Kingsbury, president, Standard Oil Co. of California, San Francisco.

C. H. Kountz, vice-president, Prairie Pipe Line Co., Independence, Kansas.

John Lovejoy, vice-president, Amerada Petroleum Corp., Tulsa, Okla.

A. C. McLaughlin, vice-president, Associated Oil Co., San Francisco, California.

B. O. Mahaffey, vice-president, A. I. M. E., president, Silurian Oil Co., St. Louis, Mo.

Van H. Manning, Petroleum Securities Corp., Forest Hills, L. I.

E. W. Marland, president, Marland Oil Co., Ponca City, Okla.

Walter Miller, general manager, Marland Oil Co., refining department, Ponca City, Okla.

C. H. Osmond, (vice-chairman, petroleum division, A. I. M. E., for refining) consulting petroleum geologist, New York City.

Thomas A. O'Donnell, chairman of board, California Petroleum Corp., Los Angeles, California.

Charles L. Parmelee, consulting engineer, New York City.

A. W. Peake, general superintendent, production department, Midwest Refining Co., Casper, Wyoming.

J. Edgar Pew, vice-president, Sun Oil Co., Dallas, Texas.

Frank Phillips, president, Phillips Petroleum Co., Bartlesville, Oklahoma.

Joseph E. Pogue, (vice-chairman, petroleum division, A. I. M. E., for economics) consulting engineer, New York City.

Mark L. Requa, mining engineer, San Francisco, California.

Rear-Admiral H. H. Rousseau, Federal Building, Los Angeles, Calif.

Walt M. Small, (representative petroleum division, Mexico) chief geologist, Cia Petrolera del Agwi, Tampico, Mexico.

George Otis Smith, director, U. S. Geological Survey, Washington, D. C.

J. W. Steele, petroleum engineer, U. S. Geological Survey, Casper, Wyoming.

John R. Suman, vice-president, Rio Bravo Oil Co., Houston, Texas.

T. E. Swigart, (vice-chairman, petroleum division, A. I. M. E., for production engineering) production engineer, Shell Co. of California, Los Angeles, California.

W. C. Teagle, president, Standard Oil Co., of New Jersey, New York City.

F. M. Towl, president, Southern Pipe Line Co., New York City.

M. M. Valerius, M. M. Valerius Co., Tulsa, Okla.

A. C. Veatch, president, Sinclair Exploration Co., New York City.

F. H. Wickett, chairman of the board, Pan-American Eastern Petroleum Corp., New York City.

C. B. Watson, vice-president, Pure Oil Co., Columbus, Ohio.

C. P. Watson, secretary, petroleum Division, A. I. M. E., New York City.

Big Lake Adds to Plant

BEST, TEX., April 24.—Big Lake Oil Co., majority producer of oil in the Big Lake field of Reagan county, Tex., is installing three additional Bessemer compressors at its gasoline plant. Present daily production of gasoline is approximately 7200 gallons.

The company recently placed orders for 125,000 feet of casing for drilling operations in the Big Lake field.

JONESBORO, ARK.—Standard Oil Co. of Louisiana, New Orleans, La. has completed a bulk station at Beebe, Ark.

Professional Card Directory

RANNEY OIL MINING COMPANY

Leo Ranney, *President*

Oil Mine Engineers

26 Broadway New York City

Practical—SERVICES—Technical

at your plant or consultant's

GREASES, all grade, TECHNICAL OILS
AUTOMOBILE, LIQUID and GRIT SOAPS,
SOLUBLE OILS for metal cutting.
SPRAYS, DISINFECTANTS, etc.

Rates reasonable

BYPRODUCTS LABORATORIES
Lake Bluff, Ill.

W. L. GOMORY

Chemical Engineer
Consulting Petroleum Technologist

Inventor Gomory Cracking Process

Licenses Solicited
Refinery Design

Peoples Gas Bldg. - Chicago

L. G. Huntley Stirling Huntley

HUNTLEY & HUNTLEY

PETROLEUM GEOLOGISTS AND ENGINEERS

Frick Building PITTSBURGH, PA.

PROFESSIONAL advertising keeps your name constantly before the industry you are engaged in. When the readers of *National Petroleum News* want professional services they will naturally turn to this directory.

THE COST IS SMALL

1-inch card $25 a quarter in advance—$100 a year for 26 issues. 2-inch card $50 a quarter in advance—$200 a year for 26 issues. Larger space increases proportionately. Single insertion rate $5.

National Petroleum News

802 Caxton Bldg., Cleveland, Ohio

Pure Oil "Weighing" Texas Wells To Determine Efficiencies, Stresses

By Paul Wagner
N. P. N. Staff Writer

THE "weighing of wells" in the Mexia-Powell district of Texas has shown to the petroleum engineering division of the Pure Oil Co. that the general practice in the oil country is to badly overload belts used for pumping purposes in the various oil fields where tests have been made.

An investigation now under way has been carried far enough to reach generalized conclusions and permit the starting of operating efficiencies that promise later to be materially extended. The work of the Pure Oil Co. is being carried on with the idea of standardizing, insofar as may prove possible, on the belting and other equipment used on its wells. The standards to be set up and followed will be in conformity with maximum efficiencies in oil recoveries under the varying conditions found in individual wells and individual fields.

A series of standards fitting varying conditions rather than a single standard applying to all wells probably will result from the investigations now being made, it is indicated by the data already obtained by H. C. O. Clark, chief petroleum engineer, with headquarters at Columbus, Ohio, and R. B. Kelly, petroleum engineer, at Mexia.

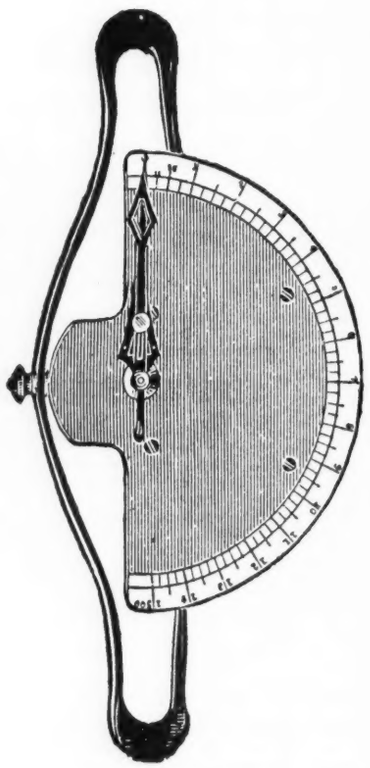
In other words, a high priced belt of maximum efficiency on one type of well might prove to be over-powered, or vice versa, on a different type of well. It is to ascertain the power requirements of wells and their equipment that weighing practices are being followed with a contrivance known as a dynamometer in the Mexia Powell district fields.

When these requirements are known the next step in the Pure's program is to work out the re-equipping, if necessary, of any wells capable of greater efficiencies under changed conditions of power loads. This takes account, naturally, of the belting or equipment standard conforming best to its own performance as well as the operating efficiency of the well.

Power Requirements Weighed

DYNAMOMETERS used for weighing purposes are compact and simple in construction and have been long used for determining the power required to operate any vehicle. Their use in weighing power requirements of oil wells, insofar as the writer knows, has come about only recently.

In using the dynamometer it is suspended from the walking beam of a pumping well and attached to the polish rods with a Ratigan, or some other, polish rod grip. The pumping equipment is then put in motion and the results noted. The dynamometer scale registers in pounds, which data is utilized by formula to compute stresses on belting.



Dynamometer used for "weighing wells" to specify proper belting.

As an example, the Pure measured one well in the Wortham field which was making approximately 400 barrels of fluid daily. It weighed 14,000 pounds, maximum load, that is to say the weight of the rods, the weight of the fluid and the friction of the fluid. That well was being operated at 16 strokes per minute, with 12 foot band wheel and 72 inch length of stroke.

Other wells "weighed" by the Pure in the Wortham and Powell fields, about 10 in number, varied from 6000 pounds maximum load to 16,500 pounds maximum load, according to the weight of the rods and the weight and friction of the fluid. In this connection, it has been customary to make an arbitrary allowance of 500 pounds for the total friction at the various bearings, which friction loss is not otherwise shown in the weighing operation.

The dynamometer readings having been obtained and allowance made for friction loss at bearings, etc., the horse power required to pump the well is computed. Then the data of belt companies as to when a belt is overloaded provide the basis for further procedure. Belt companies generally recommend 15

THE PURE OIL COMPANY

Trial Belt Record Date.....

Division..... District..... Lease..... Well.....

(1) Maximum Load.....(2) Maximum Load Pumping.....

(3) Minimum Load Pumping.....(4) Length of Time Well Pumps.....

(5) Length of Pittman.....(6) Strokes Per Minute.....(7) Length of Crank Arm.....
(8) Diameter Band Wheel.....(9) Diameter Driving Pully.....(10) Distance of Belt Centers

(11) Rotary or Standard Hole.....(12) Depth of Hole.....(13) Size of Working Barrel.....(14) Size of Tubing.....(15) Size of Rods.....(16) Barrels Of Oil in 24 Hours.....(17) Barrels of Water.....(18) Barrels of B. S.....

(19) Amount of Gas.....(20) Kind of Belt in Use.....(a) Name.....
.....(b) Weight or Ply.....(c) Width.....(d) Length of Service
.....(21) Belt Recommended.....

(a) Width.....(b) Weight or Ply.....(22)

(22) Date	Belt Installed	Date Removed	Size	Make	Remarks

Note: Under remarks, describe fully condition of belt when removed.

Form used to record data developed by "weighing" well and other data bearing on belt specification

pounds per inch per ply at belt travel of 1000 feet per minute, according to Mr. Kelly, who says:

"We can, thus, tell whether a well is overloaded; if pumping at an overload it is reasonable to suppose the well should have a heavier belt."

As the problem has resolved itself into getting the right belt for the individual well, it is apparent that extra heavy belting, by comparison, is required by the heavily loaded well.

Having figured from data obtained by weighing just what the load on the well is, without the necessity for guessing, it is then possible to use the belt that will stand that load with a safety factor possibly of 4.

Algebraic Formulae Used

BELT requirements are figured by algebraic formula with regard to stress figures and the safety factor, which might be 5 or 6 instead of 4.

A problem was recently put up with regard to an individual well to determine the proper width of belt for the specific job. It was desired to maintain a safety factor of 6 and to use a 14-inch belt. The weight shown by the dynamometer was 5675 pounds, thus the following formula was used for computing belt requirements:

5675 pounds x 6 equals 34.050 pounds; tensile belt strength;

34.050 pounds divided by 14 equals 2432 pounds per inch of width of belt.

Decision was reached that it probably would be impossible to find a belt that would reach this requirement and at the same time be flexible enough to go around 16, 18 and 20-inch pulleys. The point was made that the required flexibility probably would not permit of efficiently running a belt much over 1500 pounds per inch of width.

The foregoing is mentioned to show the tendency of tests to indicate future use of thinner and wider belts. Figuring on the basis mentioned in the foregoing it was found that it would take a 23-inch belt to efficiently maintain a safety factor of 6 and a 19-inch belt to maintain a safety factor of 5.

Pure Oil Co's. plans also contemplate the testing of how tight belts are to be placed over the band wheel and pulley. This is for the purpose of checking the danger of overstretching in belt usage, which may cause a belt to slip continuously and fail to do its work.

COHOES, N. Y.—Cohoes Motor Car Co., which has conducted an automobile business along with its gasoline business up to June 1, 1925, has discontinued the automobile line and is now devoting its entire efforts to the sale of gasoline and motor oils.

The company recently installed visible gasoline pumps at its service stations. It has also leased several new stations on important highways leading to the north and to the Adirondacks.

Another Globe Victory

A Continuous-Duty Air-Cooled Compressor

In the Dependable and Popular Simplex Type.

THE ONLY AIR-COOLED COMPRESSOR ON THE MARKET WHICH CAN BE OPERATED CONTINUOUSLY AT HIGH PRESSURE

Built in 1, 2 and 3 H.P. sizes for large establishments

Write for catalog and be ready for spring business with—YOUR BEST ADVERTISEMENT—A GLOBE AIR COMPRESSOR.

Globe Manufacturing Co., Battle Creek, Mich.

UNIVERSAL

Cincinnati Advertising Globes

ASK THEM IN

The passing motorist notices and responds to the eye-catching glass globe, especially the CINCINNATI globes with their brilliant, permanent designs. Fired-in glass colors permanently affix to the globe faces your design in true, ever brilliant colors. There is no scaling off.

4 Points!

1. Colors Fired-In.
2. Scientific Annealing
3. Shipments Prompt.
4. Low Cost.

No charge for sketches and art work. Information available as to prices and delivery.

The Cincinnati Advertising Products Company

1101-1107 York St.
Cincinnati,
Ohio

STANDARD

RED CROWN GASOLINE

WOLVERINE GAS

The Gasoline System with Nozzle Control Means More "Fill Me Up" Sales

Aqua System has nozzle control—rapid continuous flow.

The operator standing at the customer's tank fills it up without spilling.

Motorists all want a full tank and get it at the stations with nozzle control.

The Aqua has power operation without motor compressors, delivers a clean, dry, full strength gasoline *accurately measured* from the top of your storage tank. It stops all evaporation losses. There is no air in the tank.

Write for Bulletin

Many of the largest Oil Companies are now using systems installed by

AQUA OIL SERVICE, Inc.
Engineers
32 Broadway, New York

AQUA OIL SERVICE INC.

tank cars *for* lease

LEASE cars for economy. Lease NORTH AMERICAN cars for satisfaction. 4500 to 10,000 gallons capacity. Single or multi-compartment. Long experience and adequate equipment guarantee unusual service—a fact demonstrated by the experience of shippers who have been North American customers for over 15 years!

Write for details.

NORTH AMERICAN CAR CORPORATION
327 So. La Salle Street, Chicago, Ill.

Oliver Talks Unit Plan Before Oil Club

EL DORADO, ARK.—Earl Oliver, producer and petroleum geologist of Ponca City, Okla., gave an address on "Utilizing our Petroleum Resources" before the Arkansas Petroleum Club here April 9, according to Dewitt T. Ring, geologist, an official of the club.

Mr. Oliver's remarks were similar in nature to his address before the Federal Oil Conservation Board at its open meeting in Washington in February, in which he advocated the unit plan of development of oil fields as being a strong factor toward stabilization in the oil industry and better utilization of oil products. "Such government assistance as may be necessary should be incidental and contributory, not the main compelling force," he said in conclusion.

More Cross Plants Ordered

NEW YORK,—Within the past few weeks contracts have been signed for the installation of Cross cracking plants with an aggregate capacity of 50,000 barrels a day in the refineries of nine companies, according to the announcement of the M. W. Kellogg Co., sales agents and construction engineers for the Cross process.

The companies that have recently signed up for the process and the daily cracking capacity to be installed by each follow: Union Oil Co. of California, 8000 barrels; Atlantic Refining Co., 8000 barrels; Standard Oil Co. of New York, 4000 barrels; Magnolia Petroleum Co., 12,000 barrels; Vacuum Oil Co.,5000 barrels; Barnsdall Refining Co., 2000 barrels; Richfield Oil Co., 4000 barrels; Champlin Refining Co., 4000 barrels; Nippon Oil Co. (Japan), 1000 barrels; Anglo-Persian Oil Co., 2000 barrels.

The company states that of the above contracts signed, the following are repeat orders: Union Oil Co., Atlantic Refining Co., Standard of New York, Magnolia, Vacuum, Barnsdall and Richfield.

PINE BLUFF, ARK.—Super Service Co., Inc., with headquarters here, is operating three service stations now, handling Texaco products. The third station was opened for business Apr. 22. A hydraulic grease rack has been installed, and the company is specializing in crank case service and greasing. C. K. Elliott, Sr. is president.

LITTLE ROCK, ARK.—The national balloon race, which will be held here on Apr. 29 and 30, in dedication of the city's $1,000,000 air port, is attracting large crowds from various parts of the country. Celebrities from the aviation world are expected, including Orville Wright himself. Airplane races will be held as part of the day's program.

The Texas Co. Tells How Adams Patents Were Acquired and Developed

By R. C. Holmes
President, The Texas Co.

Republished from April Number of The Texasco Star

REPLYING to inquiries from some of our stockholders as to what effect the litigation instituted by the Government involving cracking patents will have on The Texas Co., I wish to say that it is the opinion of the company's counsel, patent attorneys, and patent experts that the government's claims of fraud are absolutely without foundation, and that The Texas Co.'s position will be fully vindicated in court.

In 1924 the Government filed a suit at Chicago against the Standard Oil Co. of Indiana, the Standard Oil Co. of New Jersey, Gasoline Products Co. and The Texas Co. as primary defendants, alleging that the procuring and treating of cracking patents, by the four companies named, as valid patents covering and controlling processes for cracking gasoline, was but a device to lend color of legality to a combination, conspiracy, and monopoly for the purpose of restraining competition in the gasoline trade.

These companies had entered into certain contracts, providing that said companies and their respective licensees had the right, upon certain reasonable terms mentioned, to use the cracking patents of any or all of these primary defendants; the contracts in question providing for the payment to The Texas Co. of a certain share of all royalties collected from such licensees.

Deny Any Restraint in Trade

THE Government contended that these contracts constituted a conspiracy in restraint of trade. The Texas Co. contended that said agreements were fair, reasonable, and lawfully supported by valuable considerations, and that none of them tended to restrain or monopolize trade, but on the contrary encouraged, promoted, and enlarged trade and commerce and diminished the natural restraint inherent in every patent and extended to every licensee of The Texas Co. immunity under the patents and patent rights of its primary co-defendants without additional cost to such licensees.

It would seem to be too plain to admit of argument that the action of these four companies in permitting each other and their licensees to use all their patents would certainly not restrain competition; but on the contrary that competition in the gasoline trade would have been restrained if each of the four companies in question had exercised their legal rights in restricting any one but their licensees from using their respective patents.

The Government has been taking testimony in this suit for nearly two years before a Master appointed by the Federal Court at Chicago, and the case has developed very satisfactorily from the standpoint of the companies involved. The primary effort of the Government was an effort to show that the patents involved were of such a narrow scope considering the prior art that the assertion of such patent rights by the primary defendants was but a device to lend color of legality to the conspiracy between the four companies, which the Government alleged existed.

Shifts Its Position

AFTER litigating this question for nearly two years and without making any material progress, the Government is now shifting its ground by attempting to amend its petition in the Chicago suit and by filing a suit in the Brooklyn Federal Court, alleging that certain of the Adams patents owned by The Texas Co. were procured by means of fraudulent affidavits.

Briefly stated, the facts are these:

About the year 1909 The Texas Co. began a comprehensive and scientific study of the problem of increasing the supply of gasoline by utilizing and converting the less valuable petroleum fractions.

It was recognized as a fact, at that time, that certain heavy oils could be transformed to some extent into lighter oils by treatment under heat and pressure, but nevertheless no complete or adequate information as to how this could be accomplished in a practical commercial way was available. Nor was it known that any actual commercial operations had been successfully carried out in the past; nor that the early processes and apparatus could be successfully utilized in actual practice for the production of the newly demanded product—gasoline.

There was at that time no known industrial process or apparatus for manufacturing gasoline by cracking or decomposition through the application of high heat and super-atmospheric pressure. With this extremely limited theoretical knowledge of the general results attainable by heat treatment of oil under pressure, The Texas Co. attacked the problem of manufacturing cracked gasoline, and expended large sums of money in scientific research, experimentation, and development, and in the employment of trained scientists and skilled inventive and mechanical experts to carry on the work.

During the year 1911 the Company was brought into contact with one Joseph H. Adams, who had then for more than ten years been making an independent and personal study of this problem and devoting his inventive talent to its solution. Adams, as early as Dec. 1, 1909, had filed a patent application in the United States Patent Office for a patent on an invention on Oil Converting Apparatus, and on Dec. 31, 1909, had filed another patent application on a Process for the Conversion of Liquids, Fluids, and Oils.

These two patent applications disclosed a new and useful apparatus and process for producing gasoline from heavier petroleum fractions by cracking or decomposition through the agency of high temperatures and high super-atmospheric pressures, but in a manner and under such conditions of operation and construction as to make possible the manufacture of cracked gasoline on a commercial and practical scale.

The Texas Co. assisted Adams in the commercial perfection and protection of his inventions; and after years of thought, study, and endeavor, given to the problem by Adams and other trained experts and skilled inventors employed by this Company, a process and suitable apparatus for cracking oil into gasoline, or a gasoline-like product, were perfected and put into practical commercial use on a large scale by The Texas Co.

Other Patents Pending

THE two pending Adams patent applications, referred to, eventually matured into patents, and in addition thereto, numerous other patents on important improvement inventions of Adams and other employes of the Company, as well as of independent outside inventors, were procured from time to time. Besides the many patents which this Company has already obtained, it now has on file in the United States Patent Office numerous patent applications for further important improvements in oil-cracking processes and apparatus, which applications are pending in the names of certain of its staff of inventive experts.

The actual expenditures made by this Company in research work and experimentation, and in the perfection and acquisition of patents, has run into millions of dollars, all of which was expended in good faith.

Our counsel, patent attorneys, and patent experts have been intimately in touch with these cracking patent matters for many years, and we are all confident that no fraud was practiced in securing the issuance of the Adams patents from the Patent Office.

Summary of Drilling Operations Month of March, 1926

(By Arrangement with Inland Oil Index)

WYOMING

Districts	Rigs	Drg.	Completed	Dry	Production
Big Muddy	2	1	1	0	50
Big Horn Basin	3	10	3	1	425
Carbon County	3	11	3	1	680
Elk Basin	1	1	0	0	000
Fremont County	3	11	3	1	210
Grass Creek	2	3	1	0	80
Lance Creek	2	1	1	0	130
Natrona County	4	8	2	0	80
Osage	4	8	5	1	100
Rock River	2	2	1	0	115
Salt Creek	16	41	33	2	20,430
Teapot	15	1	0	0	000
Miscellaneous	16	50	2	2	000
Totals in Period	73	148	55	8	22,300
Totals Last Period	67	137	51	11	15,890
Difference	6	11	4	3	6,410

*1 Gas Well.

MONTANA

Kevin-Sunburst	21	39	13	5	7,145
Cat Creek	3	5	4	2	120
Miscellaneous	14	22	7	6	gas
Totals in Period	38	66	24	13	7,265
Totals Last Period	46	48	21	11	8,360
Difference	—8	18	3	2	—1,095

OTHER STATES

North Dakota	2	2	0	0	000
South Dakota	2	3	1	1	000
Western Nebraska	2	2	0	0	000
Western Kansas	8	23	11	3	1,300
Idaho	2	2	0	0	000
Nevada	3	1	0	0	000
Utah	9	14	1	1	000
Colorado	11	35	6	3	400
Arizona	3	6	1	1	000
New Mexico	12	40	14	6	4,600
Totals in Period	54	128	34	15	6,300
Totals Last Period	54	117	28	9	4,470
Difference	*0	11	6	6	1,830

*1 Gas Well.

RECAPITULATION

Wyoming	73	148	55	8	22,300
Montana	38	66	24	13	7,265
Other States	54	128	34	15	6,300
Totals in Period	165	342	113	36	35,865
Totals Last Period	167	302	100	31	28,720
Difference	2	40	13	5	7,145

Jobber Changes Personnel

WEST ALLIS, WIS.—West Allis Oil Co., marketer of Meteeor gasolines and lubricating oils, has announced a change in the members of its organization.

H. A. Rhode, who has been in the oil industry for some time, is the newly appointed vice president and general manager. He is also a member of the board of directors.

D. E. Deuster, who is well known in the community through connections with local manufacturers, has been appointed secretary and treasurer, as well as a director.

George M. Hinkley, president of the West Allis State Bank and president of the Hinkley company, is president of the West Allis company, and also on the board of directors.

Storage capacity of 100,000 gallons each for gasoline, kerosene and furnace oil will be added soon, and a compounding plant for lubricating oil and greases will be built. The company is a member of the National Petroleum Marketers Association, Chicago.

TRANSIT Red Head TONGS are the only genuine Klein Tongs

Bulletin 5-C "Tools for Pipe Line Construction" on request

NATIONAL TRANSIT PUMP & MACHINE COMPANY
OIL CITY, PA.

District Offices: **New York, Philadelphia, Tulsa, Cleveland, Pittsburgh, Houston and Denver**

Empire Buys Property in South Vernon

CLEVELAND, O., April 24.—Announcement has been made that the Empire Gas & Fuel Co. has purchased the properties of McCamey-Sheerin and Lucey Petroleum Corp. in the South Vernon pool of Wilbarger county, Texas.

The property consists of 220 acres in Sec. 83, Block 14, H. & T. C. Survey, and is in the center of the South Vernon pool. It has 36 producing wells making about 1600 barrels daily. There are eight producing sands, ranging in depth from 1300 to 2300 feet and it is about one-third developed. The purchase price was around $1,500,000.

Much interest among operators has attached to this development, for Capt. J. F. Lucey, president of the Lucey Petroleum Corp., retired some months ago from the supply business after establishing his name the world around, and entered the producing business.

McCamey-Sheerin are well known Texas producers and were active for some time in the Breckenridge district.

The Empire took possession of the properties on April 16. This is the largest deal the company has made since it bought properties in the South Electa district more than two years ago for which it paid $3,500,000.

Test At Robinson, N. D., Reaching Fair Depth

CLEVELAND, O., April 24.—The well being drilled by A. C. Townley, former Non-Partisan League Leader, at Robinson, N. D., has reached a depth of about 2300 feet, according to reports from reliable citizens of that region. This is the test that was promoted by Townsley on the strength of a showing of very light oil—said by the state geologist to be very similar to commercial gasoline—in the city water well of Robinson.

There has been a certain amount of leasing activity in this section of North Dakota and the territory has been visited by scouts for large companies and geologists. Northern Burleigh county has come in for some attention, but everything is awaiting the outcome of the Townley well.

Laessig's Daughter Marries

Clemens H. Laessig, president of the Automobile Gasoline Co., St. Louis, has announced the wedding of his daughter Miss Marian Louise to Dr. Otto St. Clair Krebs to take place at St. Louis, April 26. Services will be in Our Lady of Lourdes Church and reception afterwards at 6803 Waterman Avenue.

LITTLE ROCK, ARK.—E. R. Russell Oil Co. recently installed the rotary lift at two of its stations here, and report good service, according to W. S. Stafford, secretary and general manager.

—N. P. N. Staff Photo

No. 2. Type of jetty being installed by the Marland Oil Co. of Texas to divert current of Canadian river at location in river bed lease, Hutchinson county, Texas. The men are searching for some of the jetty parts that were lost in the recent high water. There will be three lines of jetties when the job is complete.

Much Time Is Lost By Panhandle Oil Men in Crossing River

By A. F. Hinton
N. P. N. Staff Writer

AMARILLO, TEX., April 24

THE Canadian river presents a serious obstacle to future development of the Texas Panhandle field—and if you don't believe it, all you have to do is to take the drive necessary to reach the wells on the north side of the river from Amarillo. After you have driven some 105 miles to find yourself less than three miles from development on the south bank, you will realize what it would mean to the industry to have a bridge across the river somewhere near the field. Also, you will find the trip to have been well worth while, for the towering bluffs on the north side allow an unrestricted panoramic view of the entire Carson-Hutchinson county development.

In the Panhandle, one has to decide upon his destination and the route to be taken to arrive there before embarking on a trip, for the roads are few and far between, and there is usually only one way to get to any given spot. There are no such luxuries as section-line roads, where every mile or so presents possible ways of cutting through and saving distance. When you get on a Panhandle road you either have to keep on going till the road stops, or go back and start over again, if it doesn't happen to be going your way.

Thus, when we decided the time had come to visit the development on the north side of the river, we had to drive 100 miles before coming in sight of a derrick, for it was necessary to follow the main road northward out of Amarillo and on to Dumas, seat of Moore county. This way leads to the only wagon bridge across the Canadian for a hundred miles or more in either direction. Dumas is about 50 miles from Amarillo, and is that far removed from a railroad. We found it to be a very muddy and unprepossessing hamlet with a frame court house and three or four stores. From there the road leads generally eastward, finally turning north, on its way to Spearman, Hansford county, and leaving us to take a trail across the plains in the general direction of the oil fields.

Not So Good, Either

THE alternative to making this 100-mile drive from Amarillo to the north side of the field is to save 20 miles in distance by taking a chance on fording the Canadian, which isn't as simple as it sounds. If the river is up, it is impossible, and if it is down, it means driving across some two miles of terrible sand with the odds all in favor of getting stuck at any minute. There is a man there who makes his living, apparently, by towing cars across at this point. If you solicit his aid in the first place, he'll haul you over for two dollars, but if you try it alone and then get stuck, he charges five dollars to come out and get you. A good chance for somebody to make a lot of money is to build a toll bridge across the Canadian at some point convenient to the oil developments.

The north side development, like that on the south, has only a few scattered wells distributed over a large area, with room enough between wells as now on production to provide steady drilling over a period of years. There is no way of telling, of course, how far production will go in any direction from present wells, nor how much area between present wells will finally be proven productive. There are now eight producing oil wells north of the river, scattered over an area three miles square, while a number of drilling wells are hard at work trying to extend the frontier in every direction.

Gulf Production Co., which was already a large lease owner north of the river, has recently acquired the holdings of the Panhandle Refining Co. in the vicinity, and is now the dominant figure in that section of the field. It is now drilling five wells on this acreage, and is building a substantial camp in Sec. 90, block Z. It also has a six-inch pipe line strung across the river and is laying a line to Panhandle, where it has bought 160 acres for use as a tank farm and loading rack site. On the north side of the river, Gulf is grading for three 55,000-barrel tanks on a site near its camp, and is building a pump station. It was at first reported that the Gulf line would extend on to Claude, Armstrong county, but its line has been strung only as far as Panhandle, and it has apparently decided upon that place as a terminus.

Location of Gulf Wells

THE Gulf Production Co. No.'s 6, 7, 8, and 9 Dial are all on the north side of the river, as is its No. 1-B Whittenberg, in the SE¼ of Sec. 89, Block Z. This well was spudding at 160 feet at last reports. It is using an all-steel rig with galvanized steel derrick which glistens in the sun and can be seen for miles from various parts of the field. Gulf No. 6 Dial, in Sec. 1, Blk. 1, is drilling at 2530 feet after having found top of the lime at 2224 feet. Its No. 7 Dial, in Sec. 25, Blk. 47, about a mile southwest of No. 6, is a rig up. Gulf

No. 8 Dial, in Sec. 1, Blk. X-102, lying midway between production a mile east and the same distance west, is drilling at 2005 feet, after having set the 10-inch pipe at 1912 feet. The same company No. 9 Dial, in Sec. 34, Blk. M-23, is rigging up. This test is about a mile and a half north and east of production.

The first well on the north side of the river dates back to Sept. 26, 1922, this being the Gulf No. 1 Dial, in the SWc N½ of Sec. 90, Blk. Z. It was a 50-barrel well in pay from 3060 to 3065 feet, and is still producing on the pump. Douglas Oil Co., which owns a block of acreage in Sections 20 and 21, Block 47, has two producing wells, one of which is an outstanding landmark. The derrick stands on a high point overlooking the river, and it and its three stock tanks can be seen from almost any point in the field. The derrick is of timber and is black with oil, which makes it all the more noticeable at a distance.

The high bluffs on the north river bank afford almost the only opportunity to see the whole Carson-Hutchinson development at a glance, and one is rewarded, after having made an arduous trip, by a truly wonderful view. The farthest derricks in the Carson county granite-wash area are plainly visible to the naked eye, although they are nearly 20 miles distant. Those familiar with the field can stand on the heights and identify practically every well, while with the aid of field glasses, every detail of development can be seen.

Jetties are Set in Riverbed To Protect Wildcat Well

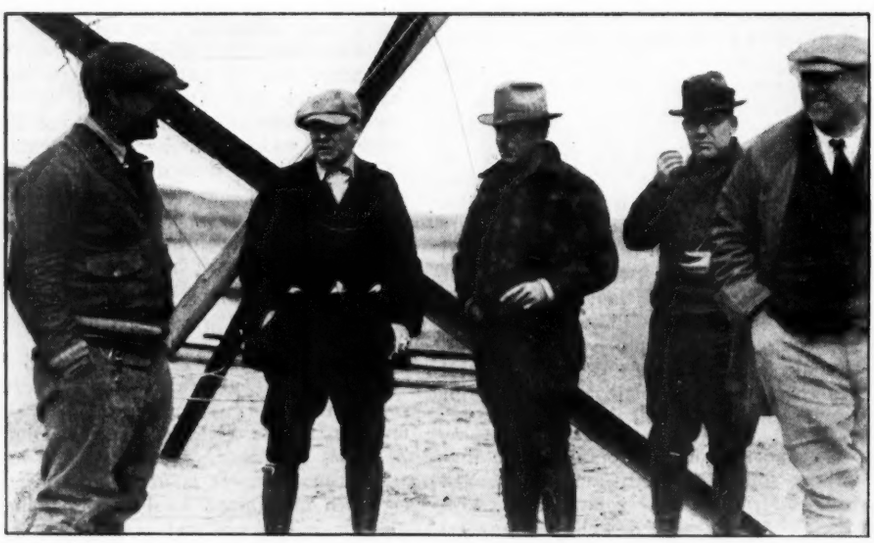
AMARILLO, April 21

MARLAND Oil Co. of Texas is making careful plans for the success of its experiment in drilling the first well in the Canadian river, on its recently acquired riverbed lease, in the Panhandle field, Hutchinson county. The company's engineers are confident that they will succeed in holding the derrick in position in all kinds of weather and under any except unprecedented river conditions. Through the use of jetties now being constructed, they plan to divert the current of the river sufficiently to cause it to exert its force on the opposite bank of the bend in which it is located, and to cause the river to deposit sand behind the jetties, thus "making land" around the location.

A partial installation of these jetties already has been made, and those now in place have had a noticeable effect of causing sand to accumulate behind them. The jetties being used are similar to those successfully used by the Santa Fe railway along the same river, and are known as the Kellnner jetties, being named for their inventor and patentee. K. R. Kightlinger, Marland construction engineer, is in charge of their installation, and will be in charge of the construction of the rig. The jetties are made of heavy angle iron with wire line mesh. They are assembled on shore and pulled into place and connected with several strings of wire line. They are anchored to the shore with "dead men."

Tests having shown that a firm foundation can be had at a depth of 21 feet below the river bottom, it is planned to drive piling through the sand and as far as possible into the hard formation. These piles will be of sufficient length to place the derrick floor 12 feet above the river bed. Heavy trestle work will support a runway leading to the derrick from the bank, and this runway will be provided with a 16-foot platform to allow trucks to turn around after delivering casing to the well. The engine house will be set upstream from the location, thus placing the walk-side of the derrick on the side nearest the south bank of the river. An all-steel tubular derrick manufactured by the Lee C. Moore Co. will be used. A problem yet to be solved is how the derrick will be securely guyed, but the engineers are confident this will be worked out satisfactorily when the time comes.

The Marland river bed lease runs from the east side of Sec. 88 to the east side of Sec. 63, Block 46, H. & T. C. R. R. Co., a distance of about 10 miles. According to the lease, it contains 2080 acres, more or less, but its area is an indefinite quantity, on account of changing of the river bed. The company has made a topographical survey of the entire lease, in order to determine by contours the actual outlines of its property.



No. 3. Group of Marland men standing in front of one of the units of the Kellnner jetties, Canadian river location, Hutchinson county, Texas, showing comparative size. Reading from left to right: Ned Miller, production engineer; M. Gordon Gulley, economic geologist, executive department; K. R. Kightlinger, construction engineer; J. V. Howell, chief of geological and scouting departments, Panhandle district; A. M. Parker, general production superintendent, Panhandle district. —*N. P. N. Staff Photo*

Correct Wild Report of His Lecture

CLEVELAND, O., April 24.—W. T. Thom, Jr., geologist in charge of the geology of fuels, U. S. Geological Survey, asks that a recent newspaper report of an address by him be disregarded by those who may have read it, as it was an incorrect rendition of his remarks.

Speaking before a university class in geology, Dr. Thom quoted from the remarks of James O. Lewis before the Federal Oil Conservation Board, as follows:

"'Broadly speaking, I estimated that one-seventh of the oil has been recovered by old processes, another seventh seems possible by present commercial practices for rejuvenating depleted oil fields, another two-sevenths seems possible by improvements in present rejuvenating processes, and three-sevenths can be recovered only be radical improvements over methods now in use.'

"Full credit was given to Mr. Lewis as the source of the quotation," said Dr. Thom, "and in commenting upon his statement, I said: 'There is question as to whether so great a proportion of the original oil content of the sand is left by present methods as has been suggested by Mr. Lewis, but assuming that he is correct that as much as four-sevenths of the original oil may be extracted by processes now in use or reasonably in sight, and assuming further that the remainder left underground amounts to no more than one barrel of oil for each barrel extracted, yet, even so, unless the necessary fundamental researches in petroleum geology and technology can be inaugurated and carried out, in order that this remaining oil can be recovered profitably and at a non-prohibitive price, the country will face a loss from this cause amounting to about 750,000,000 barrels of oil annually on the basis of present production."

Mr. Walter C. Teagle, President, Standard Oil Company (N.J.), speaking before the Federal Oil Conservation Board at Washington, D. C., February 10th and 11th, 1926, is quoted:

(From the official record as printed by the Government Printing Office, Washington)

"As the industry has now developed commercial processes to crack all grades of crude, the price incentive to extend cracking facilities and thus conserve crude is much greater today than it was when the industry was confined to the use of processes utilizing only distillates.

"Every barrel of crude is now a potential source of gasoline, but in most localities the fuel oil content is still the cheapest source.

"Fuel oil today east of the Rockies, is in direct competition with crude as a source of supply for gasoline.

"Fuel oil has the advantage, owing to its lower cost, and as long as this price condition continues, increased quantities of gasoline will be made from fuel oil. Reducing proportionately the demand for crude."

(Italics used are ours)

Universal Oil Products Company
Owners of the Dubbs Process
310 South Michigan Ave
Chicago, Illinois

Gasoline and Oil Filling Stations

and Steel Buildings

We manufacture the simplest to the most elaborate Stations. Put your own individuality in your Filling Stations—Let us help you work this out.

The Edwards Manufacturing Co.

524-544 Eggleston Ave. Cincinnati, Ohio

for Tank Fittings

Vented Fill Pipe Cap
4 sizes

Water-tight Fill Pipe Cap

Holes in the cover provide a place for the lock, no matter how tightly the cap may be screwed down.

8 sizes

Air Vents for Underground Tanks
5 sizes

Flush-Floor Cap
4 sizes

Reducing Bushing
double tapped
16 sizes

OIL jobbers, refiners, tank manufacturers and service station operators have all found that Des Moines Tank Fittings are low in price and lowest in yearly cost. Nearly all the large oil companies are numbered among our regular customers.

Every item in the Des Moines line is carefully designed and accurately made. Large stocks enable us to assure you of same-day shipping service on your order, from our factory or our nearest warehouse.

Whenever you need fittings, write, wire or phone for quotations on the quantities you require.

Des Moines Foundry & Machine Co.
DES MOINES, U. S. A.

Have Your Engineering Department Write for Test Samples

Treasure Island Has Many Filling Station Plans

FORT WAYNE, IND.,—"Treasure Island" is the romantic and unique title chosen by S. F. Bowser & Co., Inc., manufacturer of oil marketing equipment, for its new booklet on the layout, design and construction of modern filling stations.

The cover of the booklet is illustrated with what might be a corner location for a filling station, with appropriate labeling of apparatus in keeping with the title of the book. The filling station site itself is labeled "Treasure Island." The block indicating the station building bears the inscription "wherefrom the treasure is forthcoming." Underground storage tanks are marked "liquid gold buried here." "Cavern and lube cove" indicate lube oil storage. A block in the rear is labeled "ye habitat of ye service man." Sketches of tropical trees and two pirate ships further carry out the idea of "treasure island" and its surroundings.

Illustrations with brief descriptions of 35 unusually attractive service stations operating today in various parts of the country, are included. All these stations are equipped with Bowser equipment and some of them have been built from plans drawn by the company's filling station planning department.

The booklet also shows plans and drawings for 13 service stations of various types, ranging from the small roadside country station to the larger and more elaborate station of the city's exclusive residential district. Complete instructions for the location of driveways, pumps, tanks and other equipment, to the planting of shrubbery, proper landscaping and suggestions for decorative features, are given in detail. These plans have been prepared by a member of the American Institute of Architects.

Copies of the booklet may be obtained by writing the company at Fort Wayne.

Pacific Gasoline Boosts Production 25%

LOS ANGELES, April 25.—Natural gasoline production of the Pacific Gasoline Co. was increased 25 per cent last year by the erection of six plants, the enlargement of two and the purchase of two from the Long Beach Gasoline & Refining Co. The company now has 28 plants.

At the recent annual meeting all directors were re-elected. They are: Harry J. Bauer, A. N. Kemp, S. M. Kennedy, Fred L. Baker, Kenyon L. Reynolds, Alfred Wright, Alan E. Morphy and H. F. Keenan.

Miller Offers to Operate Refineries For Jobbers Who Will Take Output

TULSA, April 24

MILLER PETROLEUM CO. of Kansas City has offered to operate its two refineries for any group of responsible jobbers who might wish to take the output of the plant. The offer was made by F. L. Miller, vice president, in a letter to H. G. James, secretary of the American Oil Men's Association which has been made public in a bulletin of that organization.

The proposal has aroused interest in jobbing circles. Mr. Miller stated today that he had received a number of direct inquiries from important jobbing interests. The inquiries indicate that some Independent distributors are concerned regarding the permanency of their source of supply.

The Miller Petroleum Co. does not propose to sell its plants to any jobber or group of jobbers. The proposal contemplates that the refineries be operated by the company at a guaranteed profit of 12½ to 15 cents per barrel of oil charged to stills, that profits above that amount accrue to the jobbers and that losses be absorbed by them.

Mr. Miller's letter to Secretary James follows in full:

"I have been informed on two or three different occasions recently that some of the prominent jobbers are feeling some anxiety concerning the stability of their future supply of gasoline. I have also been told that one large jobber has contemplated the purchase of a refinery to protect his needs.

"After giving this subject some consideration one can easily see why alarm should be felt when recent consolidations and outright purchases by various companies in the Standard group are weighed against a few remaining Independents.

"If the Standard Oil companies were to serve notice on their subsidiaries they were in position to handle all surplus gasoline aside from requirements of their own stations and did not desire any part of their output distributed through Independent channels, I am sure a very large percentage of our so-called Independent jobbers would find themselves without any products to sell.

"If such an edict as described went forth, it would cause consternation over the entire territory; on the other hand, it has been so easy to purchase gasoline at less than cost for the past three years that any concern endeavoring to secure a reasonable price for its products has met with little success, and some of our best jobbers seem to have the idea a refiner is rolling in wealth, regardless of what price he secures for his goods, or what deficit shows in his financial statement.

"Now if it is true that some of the most wide-awake men in the distributing end of the industry are coming to their senses even to the point of considering the purchase of a refinery, the thought has occurred to us it would be much more economical for such a company to enter a working agreement with an established refiner that knows his business than to attempt to handle a branch of the industry about which he knows nothing.

"We have two refineries that can be operated to best advantage at about 4000 barrels capacity. With slight changes, if necessary, the same results could be obtained on a maximum run of 5000 barrels with the addition of no new equipment.

"If we could be assured of a steady outlet for our entire production throughout the year at a nominal profit of, say, 12½ to 15 cents per barrel, we would consider this favorable to the possibility of a greater return a portion of the year with losses during the other periods of the year. Yet we are satisfied a jobber attempting to operate a refinery could not begin to handle a plant at our cost plus profit mentioned, let alone the worries he would encounter.

"We would be in a position to set a maximum figure for operating expenses and to guarantee at no time fuel oil sales or sales of any other surplus product would go below the low point shown in Platt's Oilgram; on the other hand, if savings were effected in operation cost, or sales were made at better figures, an advantage would accrue to the jobber or group of jobbers entering into such an agreement with us.

"We would stand ready to furnish certified public accountant's audits supporting any statements made, and arrangements could be made whereby goods shipped could be invoiced on the basis of Platt's Oilgram on date of shipment, financial adjustment to be made by the 15th of the month following, buyer receiving payment for any excess charge or drafts for any amount due us. We would finance all crude purchases and operating expenses, but shipments would have to be on a cash basis, inasmuch as it would be necessary in many cases to pay for crude in advance in order to hold down costs.

"Do you think any group of responsible oil jobbers with whom you are acquainted would be interested in such a proposition? It would mean stability of supply for them and a limited profit for us as refiners, and, I believe you will agree with me, the tentative figure fixed is very nominal as compared with what would be considered a normal profit."

J. H. Miller, and his son F. L. Miller have been engaged in the oil business for the past 20 years. They have been refiners for the past 13 years. The company has plants at Humboldt, Kan. and Wichita Falls, Tex., both of which are equipped with cracking plants. The company does not have its own filling or bulk stations. It has consistently advertised in the trade papers that it has no stations and wants none.

The Milwaukee Visible Pump

Builds Gallonage!

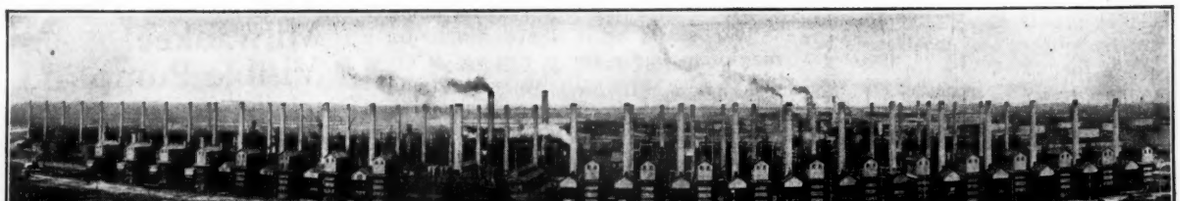
It delivers "Accurate Measure or No Gas"—and motorists like that.

Its easy-acting Flow-Lock must be accurately set before any gas can be served.

That's the meaning of—

MILWAUKEE TANK WORKS
MILWAUKEE, WIS.

The Holmes-Manley *Cracking* Process



56 Units at the Port Arthur Works of The Texas Company

ALL of the Naphtha produced in 1925 from these units was finished by chemical treatment—*without steam stilling*

Marland Opens New Grant County Pool; Seminole Wildcat Interesting

By A. F. Hinton
N. P. N. Staff Writer

MOST important among the past week's field developments in Oklahoma was the discovery of a new Wilcox sand pool in Grant county in a locality considerably removed from present production in this horizon. The well making this discovery is the Marland Oil Co. No. 1 Webb, in the center of the NW NE NE of 2-27-3W. After getting the Wilcox sand at 4342 feet, the well was drilled one foot in and at this depth was flowing 20 barrels an hour at last reports.

Location of this well places it about three miles north of the old Deer Creek field, also in Grant county, where large gas wells and small oil wells have been producing for some time. The new well is about 18 miles north and 12 miles west of the Tonkawa field and is about 12 miles due west of the Blackwell field. It marks another triumph for the core drill in discovering hidden structures, and is one of a number that have been discovered by Marland and Roxana interests in northwestern Oklahoma. The well is located on a block of some 1800 acres owned by the Marland company, although several other large companies have holdings in the near vicinity.

Another interesting test now showing for a well is the Marland-Mid-Continent No. 1 Mobius on School Land located in the SEc NW of 33-20-5E, in the southwest corner of Pawnee county. This is an old well drilled deeper, it having been a small producer in upper horizons. It is now 10 feet in sand topped at 3691 feet and is reported to have 800 feet of oil in the hole. This well is about four miles west of the town of Quay, which underwent a townsite drilling campaign a number of years ago, and is in what is generally referred to as the Yale district.

In the south-end, so-called, much interest has been aroused in the showing of a new well which evidently has opened another Seminole county field. This is the F. J. Searight No. 1 Davis, in the SEc NE SE of 33-10-6, five miles north of the town of Seminole. This well is reported to be flowing about 15 barrels an hour in the Hunton lime formation from 4114 to 4116½ feet. The oil is of 41 degrees gravity. The operators are building two 250-barrel tanks and one 500-barrel tank and the Oklahoma Pipe Line Co. (Carter Oil Co.) is laying a 4-inch line to the well. When these facilities have been provided, the well will be drilled farther into the pay. Prairie Oil & Gas Co. has made a location for a south offset to the new well and Carter Oil Co. probably will drill the east offset.

I. T. I. O. Makes 1,000 Bbls.

THIS new well is about six miles north and west from the good well of the Indian Territory Illuminating Oil Co. in the NWc SE of 24-9-6, just outside the town of Seminole. This well, although six weeks old, is still flowing 1000 barrels daily and apparently is the discoverer of an important new pool. A number of wells have started up in all directions from the I. T. I. O. well, there now being 17 operations under way in the vicinity. The I. T. I. O. is drilling its No. 2 on the discovery farm, in the SWc NW SE of 24, and its No. 8 on the same lease, in the NEc of the same 40-acres.

This company also has three wells under way on its 80-acre lease lying north of the discovery. Its No. 1, north offset to the discovery is in the SWc NE of 24, No. 2 is in the NWc SW NE and No. 8 is in the SEc of the same forty. This company numbers its locations according to positions on the lease, so that the No. 8 does not mean that it is the eighth well on the lease, but is the eighth location from the discovery well.

The west offset to the I. T. I. O. discovery well is being drilled by the Tidal Oil Co. in the NEc SW of 24 and the same company is drilling its No. 2, in the SEc NE SW. South of this well, Mid-Continent Petroleum has its No. 1 in the NEc SE SW of the same section. Barnsdall Oil Co. has the northwest diagonal offset to the discovery in an 80-acre lease acquired when it took over the Waite Phillips Co. It has two wells going down, one in the SEc of the NW and No. 2 a quarter-mile to the north. Gypsy Oil Co. is drilling north of the Barnsdall No. 2, in the SEc NE NW of 24. Amerada Petroleum Corp. is drilling in the NWc NE SE of 24.

Across a quarter section northwest from the discovery, Mid-Continent Petroleum Corp. is drilling its No. 1, in the SEc of section 14, and a half-mile south of the discovery, Mid-Kansas Oil & Gas Co. is drilling in the NWc NE of 25-9-6. A half-mile south of this well is the Empire Gas & Fuel Co. No. 1 in the NWc SE of 25, and a mile west of the Empire well is the Independent Oil & Gas Co., drilling in the SWc NE of 26.

Wewoka Deep Sand

THE tenth well in the Wewoka deep sand area is the No. 1 Garber of the Dixie Oil Co., in the NEc of 5-7-8, a full mile east of the discovery well of the Magnolia Petroleum Co., which is in the NWc of the same section. The Dixie well is an old well drilled deeper, and is located on the southeastern edge of the old Wewoka shallow sand pool. It had the top of the Wilcox sand at 4155 feet and when drilled to 4171 feet, flowed 940 barrels in the first 10½ hours. If it keeps on at that rate, it should be at least a 2000-barrel well when the first full day's gauge is available.

Including the part-time production of this well, the 10 Wewoka deep wells produced 28,964 barrels in the past 24 hours, with the high average of nearly 3000 barrels per well. The discovery well, which stopped flowing last week after

(Continued on page 59)

Drilling Operations in Oklahoma, Kansas and North Texas

	Apr. 17 Week Ending					Apr. 24 Week Ending				
	Loc.	Rigs	Drg.	S.D.	Total	Loc.	Rigs	Drg.	S.D.	Total
OKLAHOMA										
Burbank	2	13	26	1	42	2	25	13	1	41
Other Osage	3	8	56	11	78	5	17	47	8	77
Bristow-Cushing	28	41	173	33	275	25	34	172	28	259
North Oklahoma	17	36	179	74	306	17	32	173	69	291
South Oklahoma	23	35	152	46	256	17	33	158	35	243
Muskogee	...	11	40	14	65	...	16	44	10	70
Okmulgee-Bristow	6	60	109	39	214	6	56	115	32	209
Tonkawa	1	1	6	1	9	1	...	6	1	8
Wewoka-Cromwell	20	15	130	32	197	22	23	117	36	198
Total Oklahoma	100	220	871	251	1442	95	256	845	220	1396
KANSAS	96	91	228	122	537	83	93	219	133	528
NORTH TEXAS										
Eastland County	...	10	40	8	58	...	2	46	7	55
Stephens County	...	17	37	11	65	...	13	37	11	61
Texas Panhandle	...	68	127	26	221	...	72	108	42	222
Mexia District	...	...	2	4	6	...	...	3	3	6
E. Texas Wildcats	...	5	7	16	28	...	5	7	15	27
W. Texas Wildcats	...	87	254	87	428	...	70	241	89	400
Wichita Falls	...	120	162	36	318	...	81	162	36	279
Total N. Texas	...	307	629	188	1124	...	243	604	203	1050
GRAND TOTAL	196	618	1728	561	3103	178	572	1668	556	2974

Completions in Oklahoma and Kansas, Week Ended April 24

OKLAHOMA

Carter County

Company	Well No.	Location	Depth	Initial Production
Atlantic	1	C NW SW NE 19-1-3W	2630–3176	72M
Twin State	3	C NW NE NW 22-2-3W	2673–3115	300
Coline	8	C NE NW SE 7-2-2W	1629–1835	65
Moline	4	C NW NW NE 7-2-2W	1481–1490	5M
Magnolia	1	C NE SE SE 16-2-2W	1225–1258	54
Amerada	13	CSL N½ SE NW 28-5-1W	1278–1291	75

Comanche County

Company	Well No.	Location	Depth	Initial Production
Continental	1	C NW NW SE 30-2-9W	2030–2039	10

Creek County

Company	Well No.	Location	Depth	Initial Production
Gled	2	SEc SW 13-19-8	2261–2306	175
Sinclair	13	NEc SE SE 16-17-7	2808–2863	10
Savoy	3	CEL NW SE 22-17-8	2323–2355	25
Wells-Thornton	1	NWc 10-18-11	1875–1887 OWD	35
Independent	1	SWc SE SW 19-17-10	2115–2140	40
Wright	10	CNL SE SW 24-17-10	1860–1878	10
Smith	1	NEc SW 28-17-11	1805–1830 OWD	10
Simmons	1-A	NEc NW SE 28-17-11	1769–1806	8
Transcontinental	2	CEL SW NE 28-17-11	1694–1714	22
Olean	9	NEc NW SW SW 32-17-8	2327–2355	35
Prairie	1	SEc SW 3-17-9	1889–2026	75

Garfield County—Garber

Company	Well No.	Location	Depth	Initial Production
Sinclair	37	C NW NE NE 13-22-4W	3571–3585	750
Roxana	1	SWc 18-22-3	3031–3038	4568

Grady County

Company	Well No.	Location	Depth	Initial Production
Manderville et al	1	SEc 15-5-8W	T.D.2457	25M
Becker-Reid	1	C SE NW 8-5-6W	T.D.3056	Dry

Hughes County

Company	Well No.	Location	Depth	Initial Production
Amerada	3	SWc NE NW 5-7-8E	4151–4158	5624

Jefferson County

Company	Well No.	Location	Depth	Initial Production
Gypsy	18	SWc NW SW NE 33-6-5W	1262–1448	240

Lincoln County—Stroud

Company	Well No.	Location	Depth	Initial Production
Texas	1	NWc SE SE 2-14-5E	3356–3436	350

Lincoln County—Davenport

Company	Well No.	Location	Depth	Initial Production
Gypsy	9	NWc SE 35-15-5E	3353–3408	275
Mid-Cont	1	NWc 8-15-6E	4025–4050	10

McIntosh County

Company	Well No.	Location	Depth	Initial Production
Gypsy	2	SEc SW SW 17-10N-14E	T.D.4465	Dry

Okfuskee County

Company	Well No.	Location	Depth	Initial Production
Cent. Natl	1	NEc SE 28-12-10	2940–2965	65

Okmulgee County

Company	Well No.	Location	Depth	Initial Production
Shaffer	7	SWc SE SE 17-15-11	2950–2986	840
Buckies	16	CSL NE NW 5-11-12	1635–1667	2
Transcont. et al	1	NEc SE 4-15-14E	1508–1517	10M
Cumberland	4	NWc SW NW 21-13-14	1736–1740	20M
Indep	11	CEL NW SW 1-15-14	T.D.2206 OWD	Dry
Henson	1	NEc SE 23-13-15E	T.D.1864	Dry
Prairie	2	NWc SE SE 17-13-11	T.D.3301	Dry

Osage County—Burbank

Company	Well No.	Location	Depth	Initial Production
Skelly	7	NEc SW 2-27-5E	2960–2999	150
Mid-Kans	10	NE SW NW 26-27-5	2962–2980	80
Kewanee	14	C NE SE SE 18-27-6	2925–2980	80

Osage County

Company	Well No.	Location	Depth	Initial Production
Devonian-Tidal	1	CWL SE 27-21-10	1895–1950	20
Sidwell et al	15	CEL NE 35-24-8	2999 OWD	Dry

Pawnee County

Company	Well No.	Location	Depth	Initial Production
Gypsy	7	NEc 35-21-8	2305–2360 OWD	4
Minnehoma	4	SEc NE NW 7-20-8	2360–2370	35
Shaffer	3	SEc 28-20-9	2680–2687	25
Texas	21	SEc NE NW 35-21-8	T.D.2458 OWD	Dry

Payne County

Company	Well No.	Location	Depth	Initial Production
Deep Rock	1	CNL SE NE SE 23-18-3	4283–4287	75

Pottawatomie County

Company	Well No.	Location	Depth	Initial Production
Magnolia	1	C NE SE SE 13-7-4E	3240–3250	23

Seminole County

Company	Well No.	Location	Depth	Initial Production
Prod. & Refrs	1	SWc SE NE 25-8-7E	3000–3076 OWD	28

Stephens County

Company	Well No.	Location	Depth	Initial Production
Carter	2	NEc NW NW 2-2-5W	1474–1491	15

Tulsa County

Company	Well No.	Location	Depth	Initial Production
Green et al	1	C NE SW 28-18-14E	1446–1468	100
Hilt et al	1	SEc SW NW 6-17-13E	1870–1896	15
Holmes et al	1	CEL NE SW 11-17-13	1927–1932	25
Thompson-Black	4	C SW SW 5-16-13	2119–1233	265

Wagoner County

Company	Well No.	Location	Depth	Initial Production
Mitchell	1	NWc NE NW 6-16-17E	1435–1449	2M

KANSAS

Butler County

Company	Well No.	Location	Depth	Initial Production
Lewis	2	NEc SE NW NE 33-27-7E	2713–2745	65
Connell et al	1	NEc 20-28-5E	3138–3143	240
Manhattan	1	NWc NE SE 12-26-6E	T.D.2835	Dry
Atlantic	3	SWc SE SW 15-28-7	T.D.3141	Dry

Chase County

Company	Well No.	Location	Depth	Initial Production
Liggett et al	1	NEc SW 19-21-6	T.D.2605 OWD	Dry

Cowley County

Company	Well No.	Location	Depth	Initial Production
Roxana	1	SEc SW SE 7-35-3	T.D.3865	Dry

Cowley County—Rainbow Bend

Company	Well No.	Location	Depth	Initial Production
Gypsy	3	NWc SE SE SW 16-33-3	3176–3215	65
W. Phillips-Marland	8	SEc SW SW 16-33-3	3189–3199	125

Elk County

Company	Well No.	Location	Depth	Initial Production
SW Gas	11	NEc SW NE 14-31-10	1322–1339	125

Greenwood County

Company	Well No.	Location	Depth	Initial Production
Kanson	2	SWc NW NE 6-22-10E	2251–2292	400
Mid-Kans	3	SEc NW NW 8-22-10	2280–2350	240
Davis et al	14	NWc SE NE 12-22-10	2001–2054	300
Phillips	6	NEc SW 12-22-10	2080–2127	100
White Eagle	2	SEc NW 12-22-10	2071–2142	250
Phillips	7	SWc NE SW 33-22-11	1886–1931	50
Phillips	3	NEc SE 26-23-8	2464–2494	35
Skelly	1	NEc NW 4-23-11	1891–1927	240
Ark. Fuel	14	NWc SW NE SW 1-24-9	2297–2336	50
McGinnis et al	4	SEc SW 19-24-11	1835–1855	40
Mid-Kans	5	SEc NE NE 19-25-9	2388–2418	50
Roth-Faurot	9	NEc SW NW 12-25-8	T.D.2284	Dry
Prairie	1	NE SE SE 12-25-12	T.D.1660 OWD	Dry

Lyon County

Company	Well No.	Location	Depth	Initial Production
Super Six	2	CWL SE SE 24-21-10E	2588–2600	250
McCollough et al	1	NWc NE NW 25-21-10	2592–2596	1100
Transcontinental	2	SWc SE SW 30-21-10	2143–2186	350

Russell County

Company	Well No.	Location	Depth	Initial Production
Valerius	16	SEc SW NW 17-12-15W	3009–3019	200

Sedgwick County

Company	Well No.	Location	Depth	Initial Production
Waite Phillips	1	SWc NE 32-29-2W	T.D.3771	Dry

Completions in North Louisiana and Arkansas, Week Ended April 22

LOUISIANA

Caddo Parish—Caddo District

Company	Well	Location	Depth	Yield
Magnolia Petr. Co	Raines No. 23	22–21–15	1675	45
The Texas Company	Russell No. 11	3–20–16	2295	50

Caddo Parish—Wistai District

Company	Well	Location	Depth	Yield
Woodley Petro. Co	Knight No. 1	35–16–12	1965	3m. gas

Claiborne Parish—Homer District

Company	Well	Location	Depth	Yield
Standard Oil Co. of La.	Shaw No. 4	30–21–7	2092	10

La Salle Parish—Urania District

Company	Well	Location	Depth	Yield
O. W. Clark Tr	K. S. Russell No. 1	25–10–1E	1552	100
Dixie Oil Co	Urania No. 4	24–10–1E	1568	20
Greenwall et al	Tyler No. 1	26–10–1E	1535	100
H. L. Hunt	State No. 1	26–10–1E	1502	7
H. L. Hunt	Tullos Heirs No. 7	26–10–1E	1492	60
La. Oil Refg. Corpn	Tremont A-5	35–10–1E	1554	150
Love et al	Zimmerman No. 2	25–10–1E	1508	150
Nat. Gas & Fuel Corpn.	F. Tullos No. 2	25–10–1E	1497	150
Nat. Gas & Fuel Corpn.	H. Tullos No. 5	26–10–1E	1494	400
Ohio Oil Co	Urania No. 6	18–10–2E	1514	1000
Roberts et al	Russell No. 3	25–10–1E	1538	100
Standard Oil Co. of La.	Urania No. 3	19–10–2E	1556	40
Geo. W. Wetherbee	Norris No. 2	25–10–1E	1532	80

ARKANSAS

Nevada County—Nevada District

Company	Well	Location	Depth	Yield
Smitherman & McDonald	C. W. Waters No. 3	2–14–21	1163	100

Ouachita County—Stephens District

Company	Well	Location	Depth	Yield
Reynolds et al	Davis No. 1	25–15–19	1516	s.w.aband.

El Dorado

Union County—Hillsboro

Company	Well	Location	Depth	Yield
Grimes & Jones	Lovett No. 1	6–18–14	2189	8m. dry gas

Smackover

Company	Well	Location	Depth	Yield
Atlantic O. & P. Co	Andress No. 4	16–17–16	2133	60
Broderick & Calvert	Murphy B-6	8–16–15	2426	225
Bond & Evans	Kilgore No. 1	4–17–16	2155	75
Lion O. & R. Co	Wilson No. 1	17–16–15	2514	50
Magnolia Petro. Co	J. Goodwin No. 12	5–16–15	2369	80
Mazda Oil Co	Lawton No. 3	10–16–15	2369	60
Miller & Cottingham	Slaughter No. 2	9–17–16	2120	100
Miller & Cottingham	Slaughter No. 3	9–17–16	2140	175
Owens et al	Parks No. 2	32–16–16	2153	s.w.aband.
Owens et al	Partee No. 1	4–17–16	2660	s.w.aband.
Pure Oil Co	Dumas No. 2	9–17–16	2109	70
Simms Oil Co	Dumas A-5	9–17–16	2114	120
Sinclair Oil Co	Flannigan No. 9	6–16–15	2572	100
The Texas Co	E. Johnson No. 11	3–16–15	2555	20
Thurman	Houston No. 2	12–16–16	2558	80
Unity Petro. Co	Bilyew A-8a	8–16–15	2413	200
Unity Petro. Co	Bilyew A-9	8–16–15	2476	260
Wingfield et al	Cruse No. 1	27–17–16	3008	s.w.aband.
Wingfield et al	Dumas A-3	9–17–16	2101	100
Wingfield et al	Dumas A-6	9–17–16	2126	600
Wingfield et al	Slaughter No. 3	9–17–16	2100	100
Wingfield et al	Slaughter No. 6	9–17–16	2102	150
Wingfield et al	Slaughter A-1	9–17–16	2116	125
Mag. Petro. Co	Shirey-Fee No. 3	30–15–16	2281	35
Ohio Oil Co	Goodwin No. 7	29–15–15	2623	90

Completions in North and Central Texas, Week Ended April 24

Company	Well	Farm	Location	Survey	Depth	Initial Prod.
Anderson County						
Elkhart	1	Lenn	Brown		T.D.2746	Dry
Archer County						
Gulf	6	Jackson	Aldridge		1560–1563	62
Gohlke	1	Wilson	Geraldine		1569–1572	20
Gulf	5	Hutchinson	ATNC		1395–1405	60
Cosden	5	Oldham	Hubble		1347–1363	700
Texhoma	2	Oldham	Hubble		1050–1056	30
Texhoma	15	Oldham	Hubble		1341–1377	132
Texas	7	Jeske	McCoy		1149–1156	30
Shasta	1	Furguson	Patterson		T.D.1770	Dry
Rinery-Bailey	1	Preston	Geraldine		1593	Dry
Burns-Maxson	4	Jackson	Aldridge		T.D.1605	Dry
Muse-Robertson	3	Jackson	Aldridge		T.D.1552	Dry
Burns	1	Wilson	Geraldine		T.D.1650	Dry
Burton et al	1	Turberville	Carson		T.D.1650	Dry
Whittaker et al	1	McCrory	ATNC		T.D.1389	Dry
Texhoma	2	Abercrombie	SP		T.D.1353	Dry
Murchinson-Fain	1	Pace	Jefferson		T.D.1265	Dry
Texas	6	Jeske	McCoy		T.D.1172	Dry
Texhoma	1	Jeske	McCoy		T.D.1173	Dry
Golding et al	1	Lauster	BBB&C		T.D.1205	Dry
Baylor County						
Magnolia	5	Portwood	TEL		1427–1434	20
Brown County						
Smith	12	Dunn	Delgado		1116–1129	250
Smith	2	Dunn	Delgado		1123–1144	400
Texas	5	Dunn	Delgado		1125–1146	400
Gillespie	2	Newton	Swain		1115–1322	15
Mook et al	2	Newton	Travis		1330–1345	10
Conway	4	Pickett	Logan		1285–1306	50
McLester et al	6	Clark	Sec. 158		1180–1210	40
Gillman et al	9	Chambers	Smith		1123–1207	75
Stout et al	1	Gaines	Jordan		2380–2430	15
McCarter et al	3	Allen	Delgado		T.D.1122	Dry
Shultz-Anderson	1	Clarke	Brewster		T.D.2254	Dry
McCamey et al	1	Williams	May		T.D.2800	Dry
Eastland	2	Stone	Williams		T.D.1560	Dry
Smith et al	1	Eddington	Millican		T.D.1371	Dry
Roth-Farout	1	Welch	Parks		T.D.1162	Dry
Ark. Fuel	1	Gaines	Plunkett		T.D.1724	Dry

Company	Well	Farm	Location	Survey	Depth	Initial Prod.
Callahan County						
Clarke et al	1	Seaman	Anderson		T.D.1505	Dry
Coleman County						
Canery et al	2	Morris	Mann		2765–2784	40 & 4M
Burk-Greis	1	Dirbell	Hicks		1900–1912	350
Eastland County						
Tex-Pac	26	Butler	York		3450–3461	15
Barker-Adams	1	Butler	T&NO		1428–1447	10
Amix	1	Connellee	Foster		2940–2962	4M
Henderson County						
Billings et al	1	Dansby	Martinez		T.D.2826	Dry
Hutchinson County—Panhandle						
Centerfield	1	Smith	M&C		2858–2880	10
Midland County						
Rook et al	1	Hill	TP		T.D.3715	Dry
Mitchell County						
Magnolia	1	Adams	TP		2940–3060	112
Montague County						
Pure	1	Maddox	Arnold		924– 931	50
Texas	5	Rowland	Chambliss		1125–1193	60
Smith et al	2	Maddox	Thompson		895– 900	5M
Flemming et al	2	Hynds	Wall		903– 912	50
Gulf	2	Cunningham	Hodges		975– 981	50
Texas	1	Cunningham	Hodges		590– 800	20M
Navarro County						
De Armond et al	1	Elliott	Autry		T.D.2540	Dry
Tom Green County						
Penn Windsor et al	1	Turner	H&TC		T.D.3401	Dry
Wilbarger County						
Phillips	6	Waggoner	H&TC		1849–1873	340
Waggoner	1	Waggoner	H&TC		1898–1921	450
Young County						
Long et al	2	Bryan	TEL		954	Dry

(Continued from page 55)

having held up beautifully at 3000 barrels daily for several months, has been plugged back to shut off water and is now swabbing at the rate of 28 barrels daily. This company's No. 2 and 3 Harjo are making 5300 barrels and 3744 barrels, respectively, and its No. 3 Franz is making 3234 barrels. W. R. Ramsey No. 4 Amos is flowing 2410 barrels, and the Homaokla-New England No. 2 Carolina is producing 3550 barrels daily. Amerada Petroleum Corp. No. 1 and No. 3 Harjo are making 8156 barrels together, and the Independent-Atlantic No. 1 Simon, farthest south well in the field, is flowing 1602 barrels.

Probably the next well to come in in this field will be the Prairie Oil & Gas Co. No. 1 Walker, in the SWc SE of 32-8-8, about halfway between the Magnolia discovery well and the new Dixie Oil Co. well which extended the field a mile to the east. The Prairie well topped the Hunton lime at 4035 feet and is drilling at 4048 feet, with about 2000 feet of oil in the hole.

Southern Seminole

IN southern Seminole county, where the Bryan, Emery, Nillson and Carter Oil Co. wildcat, known as No. 1 Walker has been producing for some time, three offset wells are going down, the third one having been located during the past week. This will be the Mid-Continent Petroleum Corp. No. 1, in the NWc of 10-7–6, a diagonal southeast offset to the discovery well. The south offset to the first well is being drilled by the Indian Territory Illuminating Oil Co., in the NEc of 9. This test now has a fishing job at 300 feet. The east offset, that of the Empire Gas & Fuel Co., in the SWc of 3, is spudding. The discovery well, which is located in the SEc of 4-7-6, is pumping about 60 barrels a day.

The Fairfax, or south Burbank pool, in the Osage, which started out so promisingly some months ago when the Prairie Oil & Gas Co. drilled in a 600-barrel wildcat some six miles from production, has proved to be a "bloomer" for everybody except the Prairie. After four months' drilling, the net result is that the Prairie has five producing wells, while all other companies operating in the vicinity have five dry holts, all of the oil in the neighborhood apparently having decided to locate under the Prairie's 160 acres.

When the original Prairie well came in last January, it made 630 barerls initial, and offsets were immediately started by the I. T. I. O. Co., Phillips Petroleum Co. and the Sinclair Oil & Gas Co. Prairie also started two more wells at once, and were successful in getting oil wells, No. 2 coming in for 500 barrels and No. 3 for about 200 barrels. Sinclair and Phillips got dry holes, each drilling two of them. The I. T. I. O. well also was a failure but is being drilled on down in the hope of finding production in the Wilcox sand.

In the last few days, the Prairie has brought in its No. 4 and No. 5 on its lease. both making oil. Its No. 4 had about 500 barrels of oil and seven million feet of gas initial. No. 5 came in showing for only 100 barrels, but may make more after having been shot. Those five dry holes probably cost $200,000, which just goes to show what an uncertain venture it is to drill for oil, even when offsetting a producing well.

In the area northwest of Bristow, Creek county, several large wells recently have caused a recurrence of interest in that area, which at one time was one of the busiest in the state, but which has been quiet for some time past. During the past week, Inter Ocean Oil Co. and J. W. McCulloch No. 2 Bigpond, in the SEc NE of 27-17-8, flowed 1090 barrels initial from the Dutcher sand topped at 3162 feet and drilled five feet in. The same interests No. 1 on this lease, which opened up this "play" is making about 350 barrels daily. Another new well in this area is the Southwestern Petroleum Co. No. 1 Pike, in the SEc NW NE of 27-17-8, a quarter-mile northwest of the Inter Ocean well. This well made 740 barrels the first 24 hours in the Dutcher sand from 3095 to 3102 feet.

In the new Ingalls pool, Payne county, Roxana Petroleum Corp. drilled in its No. 3 Stover, in the SEc SW SW of 13-19-4E, with initial produciton of 1842 barrels in its first 23 hours. This well got the top of the lime at 3623 feet, black shale at 3690 feet and sand at 3729 feet, with first oil at 3732 feet. Its total depth is now 3738 feet.

Wells Completed

IN Oklahoma, during the week just closed, 54 wells completed of which 41 were oil wells, six were gas wells, and seven were dry holes. This compares with last week's record of 87 completions, divided 55 oil wells, seven gas wells, and 25 dry holes.

The 41 oil wells included in this week's report had total initial production of 14,613 barrels, giving them an average of 356.4 barrels per well. Last week, 55 wells brought in 23,595 barrels of new production, with a per-well average of 429.0 barrels.

Completions reported from Kansas during the past week totaled 27, of which 20 were oil wells and seven were dry holes.

THE ANNUAL ATTACK

We See By The Papers—

Conscious and unconscious humor concerning the oil industry from the press of the nation.

National Petroleum News

No Hearsay About This

Editor of the Anthony, Kans., Bulletin paves the way for public acceptance of what he is about to say:

Oil news is almost always diluted with a certain amount of hearsay, rumors, propaganda and sediment, which reporters gather in good faith and hand to the public because they seldom have opportunity to put their calipers onto a story before it gets cold and shrinks. But here are some microscopic facts about the Ludeman-Bluhm well to be drilled on the Anthony anticline eight miles southeast of Anthony that are gleaned from Mr. Bluhm personally within the last 48 hours.

A Few Years of Grace

Morris, Ill., Herald presents some arithmetic on duration of oil supply:

The oil expert told the federal oil conservation board the United States' known supplies of petroleum will be exhausted in seven and one-half years at the present rate of production and use. Another expressed the opinion that eight billion barrels of oil may be taken from supposedly exhausted wells by the employment of modern pressure methods of production. His theory is that only half of the oil originally in the drilled ground has been recovered, but that the remainder can be got if it is properly sought.

It may reasonably be assumed, then, that this man would extend the time of exhaustion of known pools to 15 years. The oil recovered from old wells at present rate of use would last 10 years, so that instead of facing a prospect of putting "the old bus" in the garage for keeps on account of no "gas" in the summer of 1933, we can continue riding on American oil for 25 years, even if no new pools are discovered meanwhile. To be sure, 25 years is so short a period of time that timorous persons may be disinclined to take a chance with an automobile that might be made useless by lack of fuel a quarter of a century hence. We imagine, however, that all but a very few will view the more pessimistic predictions with complacency.

It's 150 Miles Away

Taylorville, Ill., Courier, describes a year's pipe line work that will cost very little:

The Ozark Pipe Line Company has a force of engineers here surveying for a pipe line that will extend from Wood River, Ill., to Gibson City, Ill. . . . . The line will be laid in the ground below freezing point and will cost about $20,000. . . . . .

It is expected that the laying of the line will start in the early summer and will be completed in one year.

Resolved: That It Was a Tree and Not an Animal

Some contention arose in Elgin, Ill., over the cutting down of a tree. It required two days to get agreement on the kind of tree. The Courier-News teed up to the subject as follows:

Many residents lament the destruction of a giant elm on the northeast corner of Highland avenue and Harvey street, sacrificed to make way for another gasoline filling station.

A reader of The Elgin Courier-News has written a letter of protest, asking if "something could be done" to prevent the cutting down of the tree.

This elm is estimated to be 200 years old; it is massive and majestic, standing 100 feet in the air; it is fully three feet in diameter at its base.

Followed next by this:

The razing of the giant cottonwood tree on the northeast corner of Highland avenue and Harvey street to make way for a gasoline station, has the approval in this vicinity, according to M. C. Reinert, of Reinert and Scheff, builders of the new station. . . . . .

In an article in this newspaper yesterday, a reader lamented the cutting down of this great tree, which the reader supposed was an elm.

The Editor's Viewpoint

National Petroleum News

Untidiness Affects Efficiency

DIRT and untidy surroundings handicap efficiency. Very many recognize that fact but not everyone applies it in his own business.

A dirty, unkempt, poorly lighted boiler-house creates waste in boiler operation, said H. A. Ross, a consulting engineer specializing on boilers, to the members of the National Petroleum Association at Cambridge Springs recently. If an unnecessarily dirty boiler-house will tend to create waste in the operation of the boiler, an unnecessarily dirty still, refinery yard, or bulk station yard or an unnecessarily dirty warehouse will also help to create waste.

Maybe the average man cannot measure that waste very easily but it stands to reason that if the waste can be measured in the boiler-house by reason of dirt, it must exist elsewhere.

The chief reason that there is so much dirt in this world is because people are lazy and blind, and executives, themselves, are inefficient.

It used to be thought that a dirty, muddy refinery was all right and couldn't be avoided, but there are many modern plants today that are clean, well lighted and efficient. The same is true of bulk stations.

But despite the many modern plants the companies have, there are many that are not modern. It may take too much money to make them modern in every respect, but it isn't going to take much money to buy a few brooms and have a man to do a few hours work around the premises. The chances are also the premises can be improved by the application of a little paint, preferably a light-colored paint.

It has been observed that wherever light, clean surroundings are given employees, those employees are quite inclined to keep themselves, as well as the surroundings clean, and cleanliness, while possibly next to godliness, as the old saying is, at least, is a considerable aid to an employee's peace of mind and efficiency.—W. C. P.

A New Line of Attack

THE traffic branch of the Western Refiners' Association, together with Fayette B. Dow, counsel for the rate structure committee of the American Petroleum Institute, are to be commended for the way they are handling the representation of the Mid-Continent refining companies in the case the western railroads are bringing before the Interstate Commerce Commission asking for increases in freight rates.

For they have lifted the case from the ordinary arguments over rates per se to the plane of straight business economics. Instead of discussing differentials, proportionals and talking in terms of comparison of oil rates with rates on other commodities, these traffic men are putting into the record of the case which will go to the Commission the thought that maybe it will be the poorest business in the world for the railroads to increase rates on oil products, for the roads themselves, and regardless as to whether those rate increases apply in Oklahoma, or in Ohio or some other states.

The same line of argument is being followed by Mr. Dow and his associate Willis Crane in working for rate readjustments with the eastern railroads in behalf of the Pennsylvania refiners. Mr. Crane brought this out in his address before the spring meeting of the National Petroleum Association at Cambridge Springs.

These oil men have pointed out, and backed up with their statistics, that, as the consumption of oil products has increased the past few years, the volume of such products moved by rail has not increased in the same proportion. They have shown how the oil companies have turned to water transportation, to longer hauls by trucks, and to revamping their marketing territories to reduce the extent to which they are forced to use the railroads to move their products.

Mr. Dow in his brief filed recently in this western rate case makes another point, going back again to straight business and accounting principles. Taking the railroad executives' own statements that passenger traffic is a greater loss to the roads than ever before, due to the use of motor cars and motor buses, making it impossible for the western lines particularly to earn anything on their investment allocated to passenger traffic, he asks whether a loss of value has not occurred which is chargeable to capital and questions the right of the carriers to increase freight rates to make up for this loss in passenger revenue. A new principle to be considered in rate questions, perhaps an important one.

The Mid-Continent refinery traffic men have also shown their desire to consider railroad rate matters from a broader viewpoint than before in their recent invitation to executive vice-presidents of the railroads of the southwest to meet with them at Tulsa and consider first-hand the needs and possibilities of the oil industry in relation to the railroads.—V. B. G.

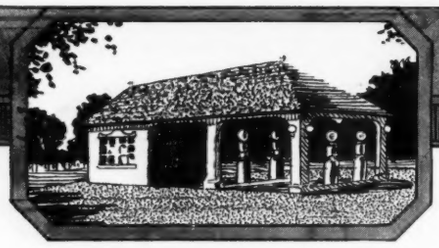
They Produce Oil, Not Lawsuits

ONE of the most successful oil company lawyers we know is a man who has appeared in court but few times during his long career. He is not known to the public which reads about trials in the newspapers, but his employers know his worth. He is a fine defensive lawyer; he has the rare ability of seeking out the man who is threatening suit and fixing it all up so that everybody is happy and there is no litigation.

There have just come to hand the facts in the case of a company which, by the same standard, is as successful as this lawyer is. The Heck Oil Co., with headquarters at Spencer, W. Va., probably has had less litigation than any other company that ever developed a new field. In 1919 it opened a new pool and has since then drilled more than 60 producing wells. It has a territory of some 10,000 acres, comprising more than 200 farms and all in a section where land titles had not been settled when the development started. It has also developed a large gas field near the oil field.

In the seven years of its existence, the company has had but two law suits. One was settled before coming to trial and the other was won by the company.

There isn't any moral attached to the story except that it shows that A. S. Heck, the owner of the company and S. P. Bell, the general counsel, have evidently worked harder at keeping out of court than many folks do at getting in.—L. E. S.



Penreco Motor Oils Special Processed Straight Still Reduced

High Flash aud Fire—Triple Filtered—Bright, Sharp, Clear Color—Low Carbon Content—100% Pure Pennsylvania Crude—Dewaxed Low Cold Test—Six Viscosities For All Automobiles.

Extra Heavy Specifications
G R 27/28 Flash 460/65 Fire 520/25 Vis 80/85 @ 210 Color 6-1/2

Write for complete details concerning our special Penreco Process of Refining. Samples and prices sent on request.

The Pennsylvania Refining Co.
Karns City, Penna.

PENRECO

Help Your Salesmen

to acquire a working technical knowledge of the selection, application and use of lubricants, by ordering for each one a copy of the PRACTICE OF LUBRICATION by T. C. Thomsen.

It discusses the origin, nature and testing of lubricants and every phase of lubrication engineering.

It is $6 a copy. Make your check payable to—

National Petroleum News
825 Caxton Building Cleveland, Ohio

If You Sell Good Stuff, Tell The World

NEW YORK.—Why it has to advertise in spite of the fact that it resents that fact, how it endeavors to put appeal into its advertising for "consumer acceptance" and why it considers newspaper space and sign-boards necessary for increasing sales, is told in a recent issue of "Printers' Ink" by Northrop Clarey, speaking on behalf of the Standard Oil Co. of New Jersey, as chairman of its advertising committee.

That people today allow advertising writers largely to form their opinions and prejudices for or against any certain product, or that the public at least judges a product by its advertising "copy," is an established fact, the Standard company believes. Millions each year go to the druggist and ask for Colgate's or Forhan's, Coca Cola or Spearmint, because these millions have the names on their tongues and the articles are on sale and in sight. They are easy to obtain, and advertising has made them so. But if the druggist cared to spend a little time telling about the merits of some other product, he is almost sure to make a sale of that article.

If any individual or company makes a superior product today, he must tell the public about it or he stands a chance of not being found out, the Standard believes. Years ago when people had time to whittle trick bowls out of peach stones and make watch fobs from horse hair, they would engage in long discussions over the relative merits of two competing mange cures, and the man who made the better article was pretty sure to be discovered.

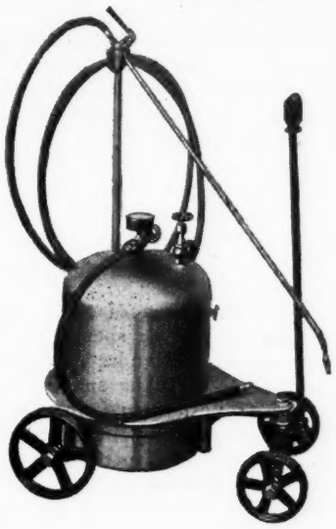
The statement is pointed out that perhaps no child ever cried for Castoria, but space buyers would have us believe that everyone of them did.

No enduring business, however, can be built upon an inferior article and held up with any amount of advertising after the public has learned that a competitor is doing a much better job. Advertising is the only medium through which the public can be informed of the product anyone has to offer, because in the busy present-day world, word-of-mouth recommendations take too much time.

Some of the most important things for a company to do that expects to become and remain successful, according to the Standard, are to sell a superior product, put labels on the containers and signs on property and to place the products where they are readily accessible to the public.

A superior gasoline or oil alone, however, with none of the other above named factors, would not sell. If its filling stations were located at the far end of blind streets or at the bottom of a hill in a poor section of town, it could not hold up its business simply by making a better petroleum product, is the statement made in this article by the Standard. About 95.5 per cent of the motor-

Write for this Folder on Spring Oiling



It gives complete details concerning this money-making, business producing unit that you should know.

Inexpensive—only $45.00—the Lipman Portable Penetrating Oil Unit oils springs thoroughly by compressed air. Tank is charged same as a tire.

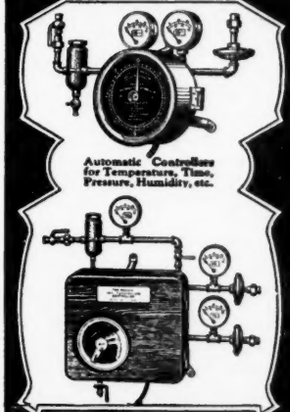
Automatic agitator constantly mixes oil and graphite. Simple adjustment for light or heavy oil.

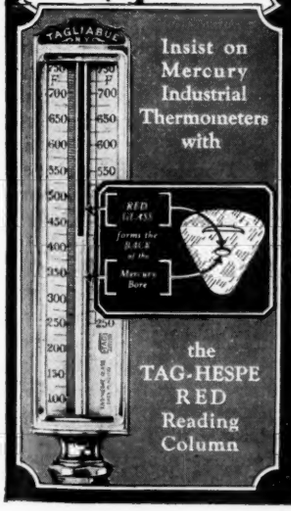
Unit handles 5 to 10 cars on one air charge.

Your folder will be mailed immediately upon request.

LIPMAN
PENETRATING OIL UNIT

LIPMAN PUMP WORKS
2302 Eleventh St. Rockford, Ill.

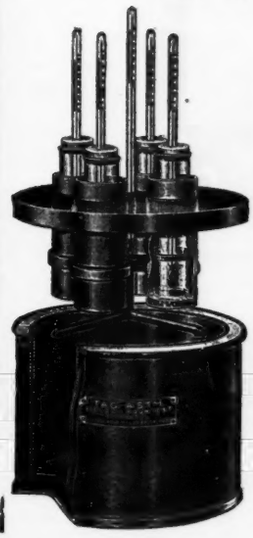




TAG

One of a series of brief descriptions of the standard tests of petroleum products. No. 1 (Gravity) appeared in N. P. N. for March 10th; No. 2 (Color) on March 24th; No. 3 (Viscosity) on April 14th.

No. 4—Cloud and Pour



To the user, the "Cold Test" may be important only in cold weather; to the refiner and jobber, all year round. Each of the two divisions of this test is difficult to perform in a strictly scientific manner—even the expert laboratory man will not get uniform results unless he follows the standard procedure (removing and inspecting the tube for not more than three seconds every 2° F., or 5° F., etc.) and uses the apparatus which conforms in every detail to the specifications. (A. S. T. M. D97-25T, U. S. Gov't 20.11) The TAG A. S. T. M. Cloud and Pour Test Apparatus is Standard. Moreover, it is designed and constructed for maximum operating convenience, which makes for utmost accuracy. Four determinations can be made simultaneously and even with an inexperienced operator, disputes concerning specifications are ended.

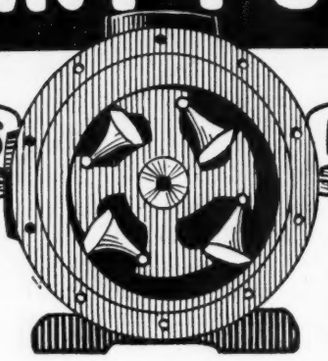
The standard procedure is described in the TAG Manual (by mail $1.00); the apparatus in catalog N-699 (free on request—have you yours?)

Next discussion, "Distillation" in this space May 12th

C. J. TAGLIABUE MFG. CO.
18 to 88 Thirty Third St., Brooklyn, N.Y.

BLACKMER ROTARY PUMPS

MORE GALLONS PER DOLLAR



Dominates the field in transferring oil and gasoline.

Capacities from 3 G. P. M. to 500 G. P. M. hand or power operated.

District Offices

284 Peachtree St., Atlanta, Ga.
709 Title Bldg., Baltimore, Md.
428 Old South Bldg., Boston, Mass.
52 W. Chippewa St., Buffalo, N. Y.
608 So. Dearborn St., Chicago, Ill.
1347 Book Bldg., Detroit, Mich.
408 Austin St., Houston, Texas.
4025 Boulevard Place, Indianapolis, Ind.
1505 Commerce Bldg., Kansas City, Mo.
Stearns-Rogers Mfg. Co., Denver, Colo.
1320 Starks Bldg., Louisville, Ky.
429 Broadway, Milwaukee, Wis.
549 Plymouth Bldg., Minneapolis, Minn.
306 Wells Fargo Bldg., New Orleans, La.
71 Murray St., New York, N. Y.
904 Real Estate Trust Bldg., Philadelphia, Pa.
711 Ferguson Bldg., Pittsburgh, Pa.
1516 Pine St., St. Louis, Mo.
693 Mission St., San Francisco, Calif.
Canadian Branch: London Concrete Machinery Co. London, Ont.

BLACKMER PUMP COMPANY
GRAND RAPIDS (FORMERLY PETOSKEY) MICH.

MARS SWIVEL JOINT

Don't waste time and money resetting coupling. MARS protects—takes the short bend in any direction, up, down, or sideways. No leaky or frayed hose. Speeds up service. Use on every pump.

After a third try and test, one Oil Company places order for 1700 MARS SWIVEL HOSE JOINTS.

Get your hose in good shape for 1926 business. Price: 1¼" -$6.35. 1"-$5.00. Write for liberal quantity discount.

NOTICE: Get this. One-gallon housed Farm Yard Pump—Write us.

MARS CO.
Aurora, Ill.

ists would drive on past the entrance of a blind street to stop at the next good-looking station that was easy to approach.

Keeping the gasoline pumps and station signs clean and attractive at all times and providing attractive posters for commercial locations, help to create a favorable impression on the motorist's mind. The "consumer acceptance" idea that advertising men talk so much about, does its deadliest work just at the time when a motorist finds that he must purchase gasoline and when he is keeping an eye out for a convenient filling station. The ideal time to catch a customer is when he is reaching in his pocket to make a purchase, was the decision of the Standard when it was considering its 1926 advertising appropriations.

In the early part of this year, more than $20,000 will be spent by the company for new Standard gasoline and motor oil signs to be supplied to dealers who request them. Another $36,000 will be expended for circular metal signs which are adapted to the display of its bar-and-circle trade-mark. The company is also prepared to spend $115,000 for painting fresh and vivid signs on bare or unattractive walls around its dealers' place wherever such painting is requested. Large Flexlume signs which show up at night as well as during the day, erected on heavy cast iron lamp posts will be ordered this year.

Illinois State Survey Has New Service

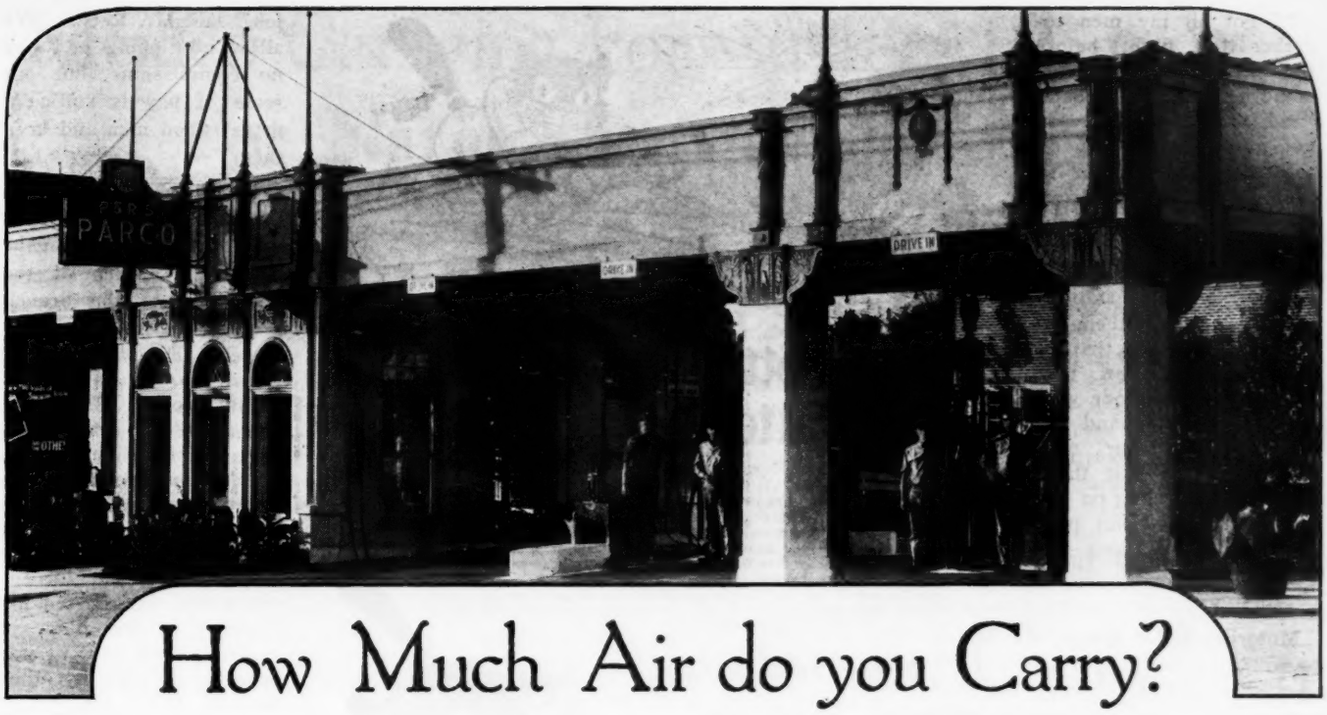
CLEVELAND, O., April 24.—The state geological survey of Illinois has started a new information service for those interested in oil and gas in the state. It is called Illinois Petroleum and is to be issued twice each quarter.

It will, according to the foreword in the first number, "give information on recent oil developments in Illinois, new areas deserving investigation, new horizons worthy of testing and new technical methods which should help to increase or maintain present production."

The first number contains an article on the oil and gas possibilities near Sparta, Randolph county, southwest part of the state. Gas was found in that community some forty years ago. A small amount of oil has been found in two wells in recent years. The article is written by Gail F. Moulton, and includes structure map of the area and recommendations for test wells.

M. M. Leighton is chief of the state survey, which has been noted for the closeness with which it worked with oil operators in the state.

BRADSHAW, NEB.—Frank Horak has purchased the filling station of George Millers here. He is installing a new pump and storage tanks, also tank wagon. Mr. Horak is generally remodeling his station and surroundings.



How Much Air do you Carry?

By V. B. Guthrie
N. P. N. Managing Editor

The above question is the password to the service station business "Jack" Reed has built up in Memphis. His men are taught to service a car, but don't ask a customer if he wants gasoline. Note in the above picture how conveniently the air lines are located to the gasoline pumps.

"HOW many pounds of air do you carry in your tires?" is the keynote to the service station business "Jack" Reed has built up for the Producers & Refiners Corp. of Tennessee at its twenty stations in Memphis.

Station attendants ask this question of every motorist who drives into the station, they come up on the trot to ask it too, they do not slouch up. They are supposed to be busy with this service and the other free service the company offers, putting water in the radiator, before the motorist can announce his desires for gasoline or oil.

To facilitate this service of putting air into the tires, the P. & R. stations at Memphis all carry air lines attached to the pillars supporting the roof over the drives. There are enough of them so that, at whatever pump a car may stop, the air hose in the attendant's hand can reach both front and rear tires conveniently.

The attendants also carry air gauges and a pair of pliers in a specially constructed belt, so they will be sure to have them on their person when they are on duty and will not have to run into the station building, or borrow a pair from another attendant.

Outside of asking about pressure carried in the tires, the station attendant asks no questions of the motorist. If the latter wants to buy gasoline he has to say so, and how much. The same with oil. With a Ford car the attendant, on his own initiative, tries the petcock in the bottom of the crank case and reports to the driver on the amount and nature of the oil there. He is not instructed to make any sales talk. With other makes of cars the attendant does not lift the hood except as the motorist asks him to look at the oil.

Mr. Reed says his station policy is to keep direct sales in the background, at least, and to let the chief impression the motorist takes from the station be that of service, believing that is the foundation on which to hold his steady business.

NO accessories or side lines of any kind are carried at the service stations of the Producers & Refiners Corp. in Memphis, Tenn. The company sticks entirely to selling gasoline and oil and grease and furnishing lubrication service. It believes that a different type of man is necessary for merchandising accessories and side lines than for running oil and gasoline sales at a station.

"I would rather have one satisfied customer of our stations through the service we give than to make two or three merely gasoline sales," he said. He went on to relate his experience with the first station he built in Memphis. He started in this city six years ago as the Reed Oil Co., and last year sold his business, or the biggest share in it, to the Producers & Refiners Corp.

Determined to prove what factor service could be made in building a station business, and yet not wanting to risk his business reputation, or its chance for success, under his own name, Mr. Reed said he opened his first station in Memphis without announcement as to ownership and ran it six months without any name, during that period selling gasoline at a half cent over the established retail price of other companies. In fact it was his policy at all his stations, while they were in his own name, to charge this extra half cent for gasoline.

HE said he succeeded in building up a satisfactory volume at this first station when a price war blazed forth in Memphis, and the retail price was cut 2 cents over night.

This left his station 2½ cents higher than other places up and down the street. Mr. Reed said he decided not to meet this cut, but to see how far he could go toward holding customers

"I got all my men together the night before the cut price was to become effective", he said, "and told them we were not going to meet it. I told them to explain to every motorist who drove into the station, without exception, that gasoline was selling 2½ cents cheaper at other stations nearby. I told them to tell our patrons that it was good gasoline, too; that we believed our gasoline was better and we were keeping our own prices up, but that there would be no feeling on our part if they did not purchase at our stations but drove to a place selling cheaper.

Motorists Drive Away

IT nearly broke the heart of our men to tell this story and see motorists drive away. At the end of two days we had lost a good share of our business, just a few people stuck with us after the first week.

"At the end of that first week, however, a surprising thing happened. Our old customers started drifting back, most of them without any comment on the situation. At the end of a month of the price war our business was back where it had been, and we had maintained our price. It was a whole month after the disturbance was over before we began to show any great gain in sales."

Mr. Reed mobilizes his service station force around Memphis according to the needs of the business during rush periods of the day. Volume of sales is clocked at all stations. The station supervisor knows almost to the minute when the rush of trade is due to start at each station. Attendants from other stations where business is slack at that particular time are shot to stations at which the peak of sales for the day is being experienced. This enables the company to keep up its standard of service without a full complement of men at all stations at all hours of the day.

Station attendants are all of equal rank in this business. There is no supervisor for each station at one end of the scale and no porter at the other. Every man jumps in and takes care of what he sees needs doing. Every attendant, however, is directly under a supervisor from the main office who spends the entire day making three trips around the twenty stations. He varies his schedule. He may be at a station and come back within half an hour, if necessary, but each station gets three visits a day when collections are made and general operations of the station checked.

The hotter the weather the better Bearcat works

Parco's "Bearcat" Motor Fuel simply revels in hot weather. It's a real tropical animal. It was developed, tried and tested during the hot weather of last summer.

Here is what you'll find it does during the high temperature seasons; it will develop more power than you ever thought your motor had; it will give you more speed with considerably less vibration; will keep your motor free from carbon; it will run your engine cooler than it ever ran before; it will eliminate all carbon and ignition knocks; and if you use the simple precaution of thinning your carburetor down still further, it will give you more mileage per gallon than any motor fuel you could use.

At Parco Filling Stations

Parco's Bearcat A MOTOR FUEL

Newspaper copy for advertisement for Bearcat, the 5-cent premium gasoline sold by the Producers & Refiners Corp. in Memphis. It is being advertised as having special advantages for use in hot weather.

Men of Equal Rank

WE find more work is done and our service is better when all men are of equal rank and each takes any job that comes along, without calling on the manager for help or waiting for the porter to tackle some dirty job," said Mr. Reed. "We allow no tipping and pay no commissions, but our scale of pay is sufficient to get good men and keep them."

Mr. Reed is one of the few examples of oil men who have worked from the producing branch of the business into the branch serving the ultimate consumer. He says he lost money in the early days of the north Texas field and then, still wanting to stay in the oil industry, looked around for some less hazardous department He built the first stations in Arkansas, when there were only 20,000 cars in the entire state. He started his business in Memphis six years ago and also has station properties in other parts of Tennessee.

His stations all have canopies over the drives and pump islands, as do most of the stations in Memphis for that matter. He says roofs are necessary, because it is either raining or the sun shining hot as blazes. "Station design and architecture must consider weather conditions," he stated. To prove his point that covered drives are a help to sales, in Memphis at least, he says he increased business at one station four fold by no other change except putting roofs over the driveways and pumps.

Within the past few months the Producers & Refiners Corp. has put on sale in Memphis its high-test gasoline, for which it has the trade-name Bearcat. This is a motor fuel of around 64-66 gravity and 375 end point. It sells for 5 cents premium over the regular grade and is building up a good business, Mr. Reed says.

It is being advertised as something new in gasolines—at least as far as the writer's observations go—a special summer gasoline. A recent piece of newspaper copy, reproduced with this article says it will give more speed with less vibration, keep the motor free from carbon, run the engine cooler and so on.

Handling Shortages

ALL attendants at a station are held responsible for any shortage in materials or cash that may develop at any Producers & Refiners Corp. station in Memphis, according to "Jack" Reed, manager.

"We make it up from all the attendants equally. That puts it up to the men themselves to find the individual responsible and put an end to it. They can be depended upon to do this, too. We very seldom have any trouble where the company has to take a hand in it.

"Station attendants are all of equal rank and on the same footing, having to report only to a supervisor from the main office."

TULSA.—The annual sales conference of the Sun Oil Co., Philadelphia, which was held on Mar. 23 at the Mayo Hotel, Tulsa, was attended by the company's Tulsa representatives, and by M. L. Newhall, western sales manager, Toledo, O; M. H. Leister, motor oil manager at Philadelphia; Guy C. Pierce. representing Williams & Cunnyngham, Chicago, national advertising agents for the Sun company.

Mexico Carrying Forward Its Program For Nationalizing Oil Lands

By V. B. Guthrie
N. P. N. Managing Editor

THE position of the American oil companies with property investments in Mexico is less secure today, in the opinions of many persons familiar with conditions in the Republic on our southern border, than at any time since Article 27, an amendment to the Mexican constitution nationalizing the petroleum resources of that land, first began to be an issue between the two countries.

Despite statements reassuring in their nature which have come from various Mexican officials recently, the fact remains that every official move of the Mexican government has been to retain the retroactive provisions of Article 27, to which the American oil companies have objected as being in contradiction of the principles of international law held by most nations.

Also, these official moves have all been directed towards setting up the machinery necessary to put this constitutional amendment into effect, with its retroactive features. There are many oil men who have worked in Mexico, as well as individuals engaged in other industries familiar with the course of events in that country, who believe that the present Calles administration is embarked on a program to nationalize its resources and industries. How far it will be able to go on such a program is problematical.

Protect Their Investment

THE position of the American oil companies in the matter is that of endeavoring to protect their present investments in Mexico, on the title to which was secured before Article 27 was written into the Mexican constitution in 1917. It is not a question of a mere principle of international law, or anything of that sort.

The recently-issued regulations of the Mexican Department of Commerce and Industry, made public the latter part of March, were the interpretation of how the petroleum law of Dec. 31, 1925, should be carried out. The petroleum law, in turn, was the statute founded on the constitutional amendment of 1917 nationalizing petroleum resources and making that provision retroactive in nature.

These regulations officially recognize the retroactive feature, despite the assurance of various Mexican officials that the retroactive feature will not be carried out. In fact it is hard to see how they could do otherwise, unless their effect was to nullify a good part of the petroleum law itself and back of that the amendment to the constitution in 1917. The recently issued regulations have been likened to the provisions issued by our own internal revenue department for carrying out our federal income tax law. The provisions can go only to the limits set down by the law, so it would seem with the Mexican regulations. They cannot be in contradiction of the principles of the petroleum law and the constitutional amendment back of that.

May Set Aside by Decree

IN Mexico they have a way of setting aside by "executive interpretation" the provisions of laws, which is quite likely to be done in the present case. However, the fact remains that the nationalization of petroleum resources in Mexico is provided for in the constitution, the law based on that clause in the constitution has been passed, and the regulations duly drawn interpreting the law.

In fact it is doubtful right now if anyone can say how far the Calles administration means to go in carrying out the nationalizing features of the petroleum law. In this country we can recall that there was confusion in the internal revenue department for some years over interpreting the provisions of the first income tax law. In the case of the recent Mexican regulations, the matter of translation from Spanish into English alone presents considerable opportunity for differing opinions and latitude in carrying out interpretation of the regulations themselves offers a greater chance for variance in opinion as to what the law calls for.

By the regulations, the American oil companies have until Dec. 31, 1926, to relinquish their present titles to their oil lands which were secured prior to the inclusion of Article 27 in the constitution. These titles were secured through outright purchase of the land in most cases. In return for so relinquishing their old titles, the oil companies will receive a "concession" from the Mexican government upon which they will operate in the future. The terms of the "concession" apparently can be changed by simple decree of whatever administration is in power in Mexico.

Recourse to the Courts

BASED upon examples we have had in this country, it may take until considerably more than the end of this year before the interpretation of the regulations of the new petroleum law can be determined. Law as set up in Mexican courts is somewhat different from this country, as witness the fact there have been five decisions of the Mexican Supreme Court declaring the provisions of Article 27 to the constitution could not legally be made retroactive. However, the oil companies will undoubtedly bring the issue of the legality of the retroactive provisions into court. In fact they have already done so on the general principles set down in the new petroleum law. The court in Mexico said, however, that they could not bring such a case except under some specific cause for action. The oil companies anticipated such a decision. They wanted to be in a position, though, where the courts, when they later brought a case under some specific case, could not throw this case out of court and say the oil companies should have brought their case earlier against the general provisions of the law.

To fully understand the position of the American oil companies with the Mexican government it must be kept in mind that there are two kinds of properties involved. One is what is known as pre-

What Will Next Step Be?

Laws of 1884, 1892 and 1909 in Mexico declared petroleum beneath the surface to be exclusive property of owner of surface. American oil companies secured oil lands under these laws.

Constitution of May 1, 1917, in Article 27, declared ownership of all petroleum deposits in the country vested in nation of Mexico, regardless as to date of their acquisition.

By agreements between oil companies and Mexican government retroactive feature of this change in the constitution was not made into regulatory law—until the Petroleum Law of Dec. 31, 1925, was passed making operative the provisions of Article 27 of the Constitution of 1917.

March 19, 1926, code of regulations issued by Mexican Dept. of Commerce and Industry, telling how provisions of the Petroleum Law are to be carried out.

American and other foreign oil companies have until Dec. 31, 1926, to give up their present rights to their properties through ownership in fee simple, and accept questionable "concessions" to the same land issued by the Mexican government.

constitutional lands and the other post-constitutional lands. One involves holdings of lands secured before Article 27 was adopted in 1917. Such lands were secured under earlier provisions of the Mexican constitution providing for the acquisition of mineral rights to lands through purchase of titles to the soil, the same as in this country. The latter concerns holdings secured after Article 27 was written into the constitution. Such lands were taken by oil companies with the knowledge the Mexican constitution had decreed the mineral rights reserved to the government.

Concerns Pre-Constitutional Lands

WITH regard to the post-constitutional lands, the American oil companies have set up no argument over the right of Mexico to carry out its nationalization policy as to mineral reserves, even though such a policy would be against the laws of many countries. They realize such a policy is going to hold back exploration work towards the discovery of new oil fields to take the place of those now being exhausted, but regard that as Mexico's affair.

With regard to lands, the title to which was secured before Article 27 was incorporated in the constitution, the oil companies maintain making the nationalization decree retroactive to include such lands is contrary to all principles of international law.

While there may be a question as to just how far the Mexican government will go in carrying out the retroactive provisions, through what interpretation it places on the regulations, the regulations do, plainly enough, carry provisions for increasing the taxes the foreign oil companies must pay to do business in Mexico.

More Taxes Called For

THEY provide for a government tax on production of from five to 15 per cent of the gross production, this in addition to the ten per cent royalty to the land owner. This applies, it is understood, on post-constitutional lands. Thus the oil companies may be faced with a 25 per cent production tax from oil on lands on which production has been developed since the Constitution of 1917.

Here again the Calles administration, apparently, has issued confusing regulations which as yet may mean little or they may mean much. The regulations provide that the present production tax is to be reduced in lands outside the old proven fields. A commission is to delimit these areas and say what the tax reduction shall be, but just what that will amount to no one can say yet.

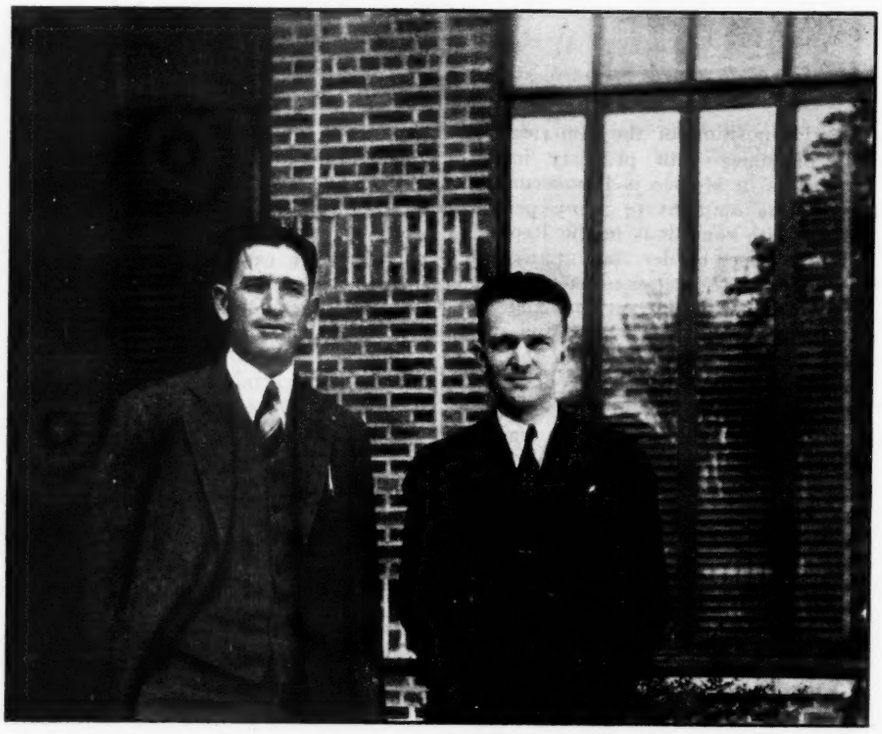
On their production for the first half of 1925 the American oil companies paid in taxes to the Mexican government 41 cents on each barrel of crude from the southern fields, which oil sold for $1.30 a barrel; and 28 cents a barrel on the heavier oil from the northern fields.

THE Calles administration is now trying to assess a transportation tax of two per cent in addition to other taxes. That is they are trying to collect from the oil companies two per cent of the amount the oil companies charge themselves for carrying the oil in their own tankers, on waters outside Mexican territory, to this country.

In an address before the Foreign Policy Association in New York on March 13, Guy Stevens, director of the Association of Producers of Petroleum in Mexico said:

"When we look back over the past ten years, we find that oftentimes the trouble which has seemed to be impending has been averted. But we find facts which make the present situation appear infinitely more serious than any that the United States and Mexico have faced before. We are impressed with the fact that the present situation is not only a natural development, but the culmination, of policies and practices which successive Mexican governments have persistently followed during that period, and, on the other hand, we come to realize that the forebearance and patience exercised by our own and other countries towards Mexico have been misunderstood. Instead of improving international relations, they have seemed to make those in power there more courageous and disingenuous in their dealings with us."

Name New Chief Geologist for Humble Oil & Refining Co.



Left, Gene Holman, newly appointed chief geologist, Humble Oil & Refining Co. Right, Robert G. Carr in direct charge of land department.

Staff Special

HOUSTON, April 24.—The appointment of 'Gene Holman as chief geologist of the Humble Oil & Refining Co. is announced by Wallace E. Pratt, director of the company and formerly in charge of the geological department. Mr. Holman and Robert G. Carr, the last mentioned in direct charge of the leasing and scouting departments, will continue to work with Mr. Pratt, whose executive duties made it necessary for him to relinquish much of the departmental detail previously handled by him.

Mr. Carr, on April 7, rounded out his seventh year with the Humble, having been connected with that company in either the scouting or the land department nearly all of that time. Prior to joining the Humble, Mr. Carr was connected with The Texas Co.

Mr. Holman joined the geological department of the Humble in 1919, remaining there until about three years ago, when he was transferred to the production department and made division superintendent in the Shreveport district. Effective April 1, he became chief geologist.

With the transfer of Mr. Holman, Dave Harris became division superintendent at Shreveport and Fred Rice his assistant division superintendent. Mr. Rice was succeeded as field superintendent in the Smackover territory by L. C. Peters, formerly a field foreman.

Anti-Knock Motor Fuels Derived From Cracking Shale Oils

By Jacque C. Morrell
and
Gustav Egloff
Research Laboratories Universal Oil Products Co.,
Chicago, Ill.,
Delivered before Petroleum Division, A. C. S. Tulsa, April 7.

IN the search for petroleum substitutes as a source of motor fuel, the most important general classes of hydrocarbons in this connection are shale oils and the tars derived from the heat treatment of coal, particularly low temperature coal tar lignite and similar materials.

Intermediate classes of substances such as the solid and semi-solid bitumens, which comprise the materials extractable from oil and tar sands, as well as such substances as gilsonite, grahamite and the like, will also furnish large quantities of hydrocarbon materials which can be utilized as substitutes for petroleum, as a primary source for motor fuel when the economic necessity arises.

Shale oil as a substitute for petroleum in the future is now generally recognized. Oil shales are widely distributed throughout the world, and are of tremendous potential value as oil resources for industrial automotive use.

It is unquestioned that at some future date shale will be utilized as a source of gasoline in automotive engines, and that the cracking of shale oil produces a high anti-knock motor fuel.

The present paper deals with the cracking of shale oil obtained from American, Australian and French shales.

The United States

IN the United States the richest deposits of oil shale occur in the Rocky Mountain region in the Green River formation. Large deposits of oil shale occur in Colorado, Utah, Kentucky, Indiana, California, Wyoming, Montana, and Nevada. Other oil shale deposits are scattered throughout the United States.

The government is expending large sums of money for the commercialization of oil shale retorting. Many small units have been constructed in different parts of the United States, but none have reached any scale of magnitude.

The potential oil in our shale deposits is tremendous, and the alertness of some of our large oil companies in plotting out oil shale deposits, clearly indicates their belief that at some time in the near future, oil shale will be retorted in a big industrial way.

There is available for retorting in the United States 394,343,819,000 tons of shale, which would yield 108,424,801,000 barrels of oil according to the American Petroleum Institute report on Petroleum Supply and Demand.

Table No. 1

	Oil Shale in 1,000 Tons (Short)	Shale Oil in 1,000 Bbls. (42 Gals.)
Colorado	113,792,000	40,640,000
Utah	92,159,000	16,588,620
Kentucky	90,604,800	28,993,536
Indiana	69,696,000	13,939,200
California	13,939,200	5,575,680
Wyoming	7,176,000	1,291,680
Montana	6,969,600	1,393,920
Nevada	7,219	2,165
TOTALS	394,343,819	108,424,801

This enormous amount of potential oil available from retorting American shales would yield by the cracking process over fifty percent of anti-knock gasoline, or over 54 billion barrels of gasoline, which would supply the automotive engines in the United States for over 150 years.

Australia

THE outstanding commercial company producing shale oil products from Australian shales at the present time is that of John Fell & Co. They have installed a Dubbs commercial cracking unit which is the first of commercial size to be used for the primary purpose of cracking shale oil, yet flexible so that crude oil or its products may be cracked without change into high yields of gasoline.

The crude oil production of Australia is practically zero, and the retorting of oil shale is of the greatest industrial importance. The known oil shale deposits of New South Wales could produce approximately 300,000 barrels of shale oil. The average shale oil of New South Wales will yield approximately 2.5 barrels of shale oil to the ton. The crude shale oil can be commercially cracked into over 50 per cent of high anti-knock gasoline. This gives a known potential production from the shales of New South Wales of over 150,000,000 barrels of high anti-knock gasoline.

Tasmania has known oil shale deposits covering 300 square miles, which would produce, if all were retorted, approximately 325,000,000 barrels of shale oil. This quantity of shale oil may be converted into over 165,000,000 barrels of gasoline by commercially cracking same under heat and pressure.

France

The crude oil production of France is negligible in quantity. France has endeavored to stimulate research by means of prizes for the commercial production of substitutes for gasoline. Much work has been carried on in the exploitation of her oil shale deposits. While the oil shale industry in France has not risen to its possibilities, a very keen interest in the subject is being shown by the government so that of necessity a successful industrial development will probably take place.

It is estimated that France has deposits of 50,000,000 tons of oil shales and that under retorting conditions there may be derived approximately 25,000,000 barrels of shale oil. This quantity of shale oil can be converted into over 50 per cent of marketable gasoline by means of heat and pressure.

Oil shale undoubtedly ramifies throughout the world and the following countries have material deposits of same, Scotland, England, Wales, Canada, New Zealand, Africa, Jugo-Slavia, Spain, Sweden Bulgaria, Germany, Italy, Switzerland, Esthonia, Brazil, Argentine, Chile, Uruguay and Russia.

Scotland

SCOTLAND has the most highly developed oil shale industry in the world. The estimated tonnage of oil shale being retorted per year in Scotland is 3,500,000, producing approximately 2,000,000 barrels of shale oil. From this it is estimated that there may be produced by heat and pressure treatment over 1,000,000 barrels of high anti-knock gasoline per year.

It is well recognized that the future of the oil shale industry will depend to a large extent upon the profitable conversion of the crude shale oil into motor fuel, as well as to some extent upon the utilization of the spent residue. Without doubt the cracking of shale oil to produce anti-knock motor fuels will be the dominating factor in the commercial exploitation of shale oil.

Sources of Shale Oil Used in Present Work

The types of shale oil cracked were American, Australian and French. The American shale oil was derived from the retorting of a Green River oil shale.

The Australian shale oil charging stock was obtained by the retorting of the New South Wales type of shale. The French shale oil was derived from the shales of the Autun Basin.

Apparatus

THE apparatus used for making these tests was a heavy eight inch welded steel still with appropriate vapor line; condenser and receiver, all constructed to be operated under pressure. Pressure measurements were determined by gauges upon the still and receiver.

A calibrated gauge glass upon the receiver allowed proper control of the rate of distillation. The vapor temperatures in the still and vapor line, as well as the liquid temperature in the still were determined by the use of thermometers. Furnace temperature measurements were made by the use of a pyrometer and a Leeds-Northrup potentiometer. A charge of 8000 cc's. was used for each of the runs.

Operating Data and Results Obtained Cracking American, Australian, and French Shale Oils

THE United States, Australian and French shale oils were subjected to pressure distillation under operating pressures of 120 and 150 pounds pressure and liquid temperatures ranging from 398°C and 433°C. The gasoline produced from the crude shale oils showed over 50 per cent Navy End Point gasoline.

These high yields of gasoline can be produced commercially and the product pass all motor fuel specifications.

The analyses of the charging stocks and the yields of the various products are tabulated in Table II as follows:

Table No. 2

	UNITED STATES (Green River Shale)	AUSTRALIA (New So. Wales)	FRANCE (Autun)
Type of Oil	Crude	Crude	Crude
Specific Gravity	0.8905	0.8756	0.8956
Flash (Cleveland Open Cup)	113°C		
Fire (Cleveland Open Cup)	129°C		
Viscosity (Saybolt Furol)	13 Sec. at 50°C		
DISTILLATION ANALYSIS			
	°C	°C	°C
I. B. P.	221	82	121
10%	260	159	196
20%	296	201	224
30%	324	244	255
40%	346	281	290
50%	373	318	321
60%	393	354	354
70%	399	382	382
80%	405	396	410
90%	405	413	421
E. B. P.	407	437	430
% Coke by weight	4.5	1.5	1.7
OPERATING DATA AND SUMMARY			
Pressure (Lbs.)	120	150	120
Liquid Temp. °C Average	417	433	426
Vapor Temp	399	398	409
Pressure Distillate—% Yield	82.0	55.6	61.0
Specific Gravity	0.7985	0.7591	0.7844
Residuum—% Yield	None	35.4	27.7
Specific Gravity		0.9786	1.030
Water—% Wt. Charging Stock	0.6	Trace	0.5
Coke—% Wt. Charging Stock	17.83	4.53	5.9
Uncondensable Gas—% Wt. Charging Stock	0.9	3.2	4.9
Gasoline (N. E. P.) % Yield	52.8	50.1	51.0
Specific Gravity	0.7499	0.7591	0.7762
Gas Oil P. D. Bottoms—% Yield	24.6	3.4	7.6
Specific Gravity	0.8849	0.8740	0.8778

Chemical Analysis of Motor Fuels Produced by Cracking Shale Oils

THE gasoline produced from the cracking of shale oils is of high anti-knock value. This is indicated by the high aromatic hydrocarbon equivalent which is determined from the chemical analysis of the gasoline. The method of analysis used here is soon to be published by the writers. In evaluating the aromatic hydrocarbon equivalent which is related to the anti-knock properties in an automotive engine, Ricardo's data for toluene is used. (Ricardo, Institute of Technology Report of Empire Motor Fuels Committee, pages 84, 85 and 145.)

Five per cent of unsaturated hydrocarbons is equivalent to one per cent of toluene when both are dissolved in paraffin hydrocarbons. Similarly, four per cent of naphthenes is equivalent to one per cent of toluene. It is to be understood that the accuracy of this relationship is limited insofar as Ricardo did not work with pure hydrocarbons. The aromatic hydrocarbon value is taken by direct determination.

In general, the unsaturated hydrocarbons are determined by treatment of the oil with 80 per cent sulphuric acid and redistillation of the cut taken for analysis after such treatment, to the temperature at which the original cut was made. The solution losses and distillation residue are respectively the unsaturated hydrocarbons removed by the acid, and those formed by polymerization acid treatment. The latter remains in the flask after the second distillation. The sum of the two give the total unsaturated hydrocarbons present.

The aromatic hydrocarbons are determined by nitration with a special nitrating mixture composed of 58 per cent sulphuric acid, 25 per cent nitric acid and 17 per cent water by weight. The naphthene hydrocarbons are determined by the lowering of the cloud point of aniline dissolved in the hydrocarbon mixture, after the removal of the aromatic hydrocarbons. The paraffin hydrocarbons are determined by difference. The details of these analytical methods are given in the paper referred to. The limitations of the methods are also discussed.

Table No. 3

Shale Oil From	Unsaturated Hydrocarbons	Aromatic Hydrocarbons	Naphthene Hydrocarbons	Paraffin Hydrocarbons	Aromatic Hydrocarbon Equivalent	Ricardo Compression Ratio
U. S. Shale (Green River)	20.1%	24.9%	6.2%	48.8%	30.4%	5.78%
Australian Shale (New South Wales)	15.7	26.0	6.0	52.3	30.6	5.8
French Shale (Autun)	16.1	28.8	6.1	49.0	33.5	5.88

The method of analyses herein shown, checks quite closely with the results obtained by motor test on synthetic mixtures of straight run gasoline and commercial benzol. For example, a straight run gasoline from Cushing crude oil having an aromatic hydrocarbon equivalent of 11 per cent in a mixture with 22.5 per cent of commercial benzol (total aromatic hydrocarbon equivalent 30.4) is the motor equivalent of the cracked gasoline from the Green River shale oil.

The chemical analyses of the cracked gasoline with the corresponding Ricardo compression ratio is shown in Table 3.

Treatment of Cracked Distillates from Shale Oils

THE cracked distillates from shale oils may be treated by several methods. A suitable method which can be readily applied commercially is as follows:

The cracked distillate is water-washed and treated with plumbite solution. A short water-wash follows the drawing of the plumbite sludge. The distillate is allowed to settle and then given a preliminary treat with about one pound of sulphuric acid per barrel of distillate. The main acid treat (6 to 7 pounds of sulphuric acid per barrel of distillate) is applied after drawing the sludge from the preliminary treat. After drawing the sludge from the main acid treat, the cracked distillate is water washed, the water drawn and the oil then treated with sodium hydroxide or plumbite solution. The oil is finally distilled in the presence of steam.

A light sodium hydroxide wash is applied to the gasoline distillate. If the latter is unstable, i.e., has a tendency to go off color, it is treated with a small per cent of fuller's earth. A combination treatment of dilute sulphuric acid followed by treatment with the regular concentration of 1.84 Sp. G. sulphuric acid, at the acid stage of treatment, gives good results.

A water white stable gasoline of sweet odor, meeting all commercial specifications results from the above treatment.

Summary and Conclusions

I. Shale oils of American, Australian and French origin have been cracked into yields of gasoline in excess of fifty per cent, based upon the charging oil.

II. Chemical analysis of the cracked

gasoline indicates it to have high anti-knock properties as a motor fuel.

III. Methods of treating a cracked distillate obtained from the cracking of shale oil to produce a water-white, sweet-odored and stable product, have been shown.

IV. Oil shale as a potential source of motor fuel in the United States is sufficient to fulfill the requirements for over 50 years based on present requirements of consumption.

B. E. Hull Elected Head of Texas Pipe Lines

NEW YORK, April 23.—Several changes have been announced in the official personnel of three subsidiaries of The Texas Co. Burt E. Hull who was vice-president of The Texas Co. of Mexico, S. A., has been elected president and director of the Texas Pipe Line Co. and vice-president and director of the Texas Pipe Line Co. of Oklahoma. He will continue on the board of the Mexican subsidiary.

D. J. Moran succeeds Mr. Hull as vice-president of the Mexican subsidiary. J. H. Hall succeeds E. C. Lufkin and P. J. Ryan succeeds Wilson Fisher as directors of the same subsidiary.

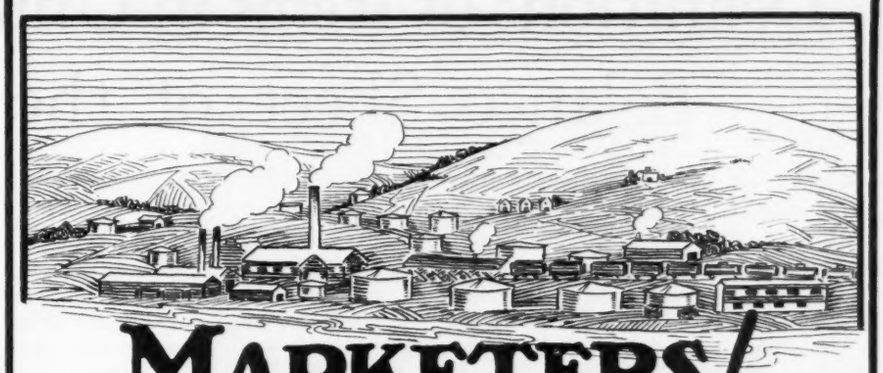
Mr. Hull was born near Navasota, Texas, and was graduated from A. and M. College of Texas in 1904 with a degree of bachelor of science in civil engineering. He worked for a short time for the Southern Pacific railroad and joined the pipe line department of The Texas Co. in January, 1905. His first work was on a line from Humble to Sour Lake. In 1909 he was transferred to Tulsa where he assisted in laying the line that is the heart of the Texas Pipe Line Co. of Oklahoma at present.

Two years later he was transferred to the refining department at Port Arthur and in 1911 was appointed chief engineer of the refining department with headquarters at Houston. He served in that position until 1922 when he was elected vice-president and general manager of the Mexican subsidiary with headquarters at Tampico. He now returns to the States.

Jobber Completes Stations

MOUNDSVILLE, W. VA.—Arrowhead Gasoline Co., with general offices here, recently purchased an 8000 gallon storage tank for kerosene and a 10,000 gallon tank for lubricating oils which were installed at its Glendale, W. Va., distributing station. It also purchased recently a 7000 gallon tank car for gasoline service.

The company has completed a 40 by 100 foot concrete block and tile building for garage and offices at Glendale and a frame garage and oil storage space at its Hundred, W. Va. distributing station.



MARKETERS!

Would you like to own a part of these rich oil fields, where nature produces, and science develops the world's finest motor oils?

EMPIRE PRODUCTS

Motor Oils
Gasoline
Kerosene
Greases
Parafine
Waxes
Fuel Oils
Stocks
Neutral

Here is an opportunity to join in a profitable partnership without the overhead and managerial expenses.

In other words, you can obtain the finest motor oils ever produced, blended according to your own requirements or straight runs, on a basis that is as profitable as though you were part owner of Empire's highly valued oil fields. You can buy small quantities or carload lots with the same facilities and economy throughout. You are always assured of uniformly high grade petroleum products.

State your requirements and Be a Partner With

Guaranteed 100% PURE PENNSYLVANIA OIL

Permit No. 19

EMPIRE

EMPIRE OIL WORKS, INC.
Oil City, Pa.

WHEN YOU BUY EMPIRE YOU GET THE BEST

BETHLEHEM
WAX PLANT EQUIPMENT

Filter Presses — *Wax Moulding Presses*
Wax Distillate Chilling Machines — *Scale Wax Cooling Drums*
Wax Testing Presses — *Paraffine Wax Sweater Plants*
Complete Wax Plants designed and built
Pumps, Stills, Towers, Condensers and other Oil Refinery Equipment
Oil Burning Systems — *Complete Power Plant Equipment*

BETHLEHEM SHIPBUILDING CORPORATION, LTD.
BETHLEHEM, PA.
GENERAL SALES OFFICES: 25 BROADWAY, NEW YORK CITY

Definitions of Items in Uniform General Balance Sheet of the A. P. I.

THIS is the sixth and concluding installment of definitions of items in the tentative uniform general balance sheet prepared by the American Petroleum Institute's committee on uniform methods of accounting, of which M. W. Mattison, in charge of accounting and tax work for the institute, is general chairman.

The uniform general balance sheet was published in the March 10 issue of National Petroleum News and installments of the definitions of the various items have been published in the March 24 and each following issue.

The figures appearing before each item are keys to the various items in the balance sheet and were adopted by the committee to provide a method of fixing each item in its place in the general balance sheet.

This is a tentative form and is published now for the purpose of criticisms by the entire industry. The general balance sheet with possible revisions will be submitted to the institute at its next annual meeting for adoption.

10. CAPITAL AND SURPLUS

This classification shall include capital stock and surplus of the accounting company.

The following sub-accounts shall be maintained:

10.0 Preferred Capital Stock
10.1 Common Capital Stock
10.2 Scrip
10.3 Surplus.

10.0 Preferred Capital Stock

This classification shall include Capital Stock of the accounting company, having preference over Common Stocks as to dividends, liquidation of assets, or other rights.

The following sub-accounts shall be maintained:

10.00 Preferred Capital Stock Authorized

10.01 Preferred Capital Stock Unissued.

10.02 Preferred Capital Stock Subscribed

10.03 Preferred Capital Stock in Treasury.

Accounts 10.00 and 10.01, as provided in the suggested uniform General Balance Sheet, are intended to be used in connection with Capital Stock having a par value.

If the Capital Stock of the accounting company has no par value, it will be unnecessary to use any of the foregoing accounts. Subscriptions to no par value Capital Stock should be charged to the subscribers and credited to Account 10.02. When subscription contracts have been fulfilled, the amount received for no par stock issue should be charged to Account 10.02 and concurrently credited to accounts style Preferred Capital Stock Outstanding or Common Capital Stock Outstanding, as the case may be.

On preparing Balance Sheets for publication, the number of shares of no-par value stock authorized should be shown in memorandum form on the Balance Sheet, as well as the number of shares outstanding.

10.0 Preferred Capital Stock—10.00 Preferred Capital Stock Authorized

To this account shall be credited the amount of Preferred Capital Stock authorized by the charter of the accounting company, and all increases thereof.

To this account shall be charged any reduction in the amount of authorized Preferred Capital Stock.

When Preferred Capital Stock is redeemed at a premium, the premium shall be charged to an appropriate profit and loss account.

10.0 Preferred Capital Stock—10.01 Preferred Capital Stock Unissued

To this account shall be charged the amount of Preferred Capital Stock authorized by the charter of the accounting company, and all increases thereof.

To this account shall be credited the amount of Preferred Capital Stock issued.

10.0 Preferred Capital Stock—10.02 Preferred Capital Stock Subscribed

To this account shall be credited the amount of Preferred Capital Stock for which subscriptions are received by the accounting company.

To this account shall be charged the amount of Preferred Capital Stock concurrently credited to Capital Stock Unissued at the time of issue of Preferred Capital Stock on which subscription contracts have been fulfilled.

10.0 Preferred Capital Stock—10.03 Preferred Capital Stock in Treasury

To this account shall be charged the amount of Preferred Capital Stock previously issued by the company when reacquired by purchase or donation.

10.1 Common Capital Stock

This classification shall include Capital Stock of the accounting company which has no special privileges or rights.

The following sub-accounts shall be maintained:

10.10 Common Capital Stock Authorized

10.11 Common Capital Stock Unissued

10.12 Common Capital Stock Subscribed

10.13 Common Capital Stock in Treasury

Accounts 10.10 and 10.11, as provided in the suggested uniform General Balance Sheet, are intended to be used in the connection with Capital Stock having a par value.

If the Capital Stock of the Accounting Company has no par value, it will be unnecessary to use any of the foregoing accounts. Subscriptions to no par value Capital Stock should be charged to the subscribers and credited to Account 10.12. When subscription contracts have been fulfilled, the amount received for no par stock issued should be charged to Account 10.12 and concurrently credited to accounts styled Preferred Capital Stock Outstanding or Common Capital Stock Outstanding, as the case may be.

On preparing Balance Sheets for publication the number of shares of no par value stock authorized should be shown in memorandum form on the Balance Sheet, as well as the number of shares outstanding.

10.1 Common Capital Stock—10.10 Common Capital Stock Authorized

To this account shall be credited the amount of Common Capital Stock authorized by the charter of the accounting company, and all increases thereof.

To this account shall be charged any reduction in the amount of authorized Common Capital Stock.

10.1 Common Capital Stock—10.11 Common Capital Stock Unissued

To this account shall be charged the amount of Common Capital Stock authorized by the charter of the accounting company, and all increases thereof.

To this account shall be credited the amount of Common Capital Stock issued.

10.1 Common Capital Stock—10.12 Common Capital Stock Subscribed

To this account shall be credited the amount of Common Capital Stock for which subscriptions are received by the accounting company.

To this account shall be charged the amount of Common Capital Stock concurrently credited to Capital Stock Unissued at the time of issue of Common Capital Stock on which subscription contracts have been fulfilled.

10.1 Common Capital Stock—10.13 Common Capital Stock in Treasury

To this account shall be charged the amount of Common Capital Stock previously issued by the company when reacquired by purchase or donation.

To this account shall be credited the amount of Common Capital Stock previously reacquired by purchase or donation, when sold, cancelled, or otherwise disposed of.

10. CAPITAL AND SURPLUS—10.2 Scrip

This classification shall include the amount of scrip certificates or warrants

issued by the accounting company, evidencing ownership of fractions of shares of Capital Stock, or conveying other rights or privileges specified in such certificates.

Appropriate sub-accounts shall be maintained to which shall be credited the amounts realized from the sale or issuance of such scrip certificates or warrants, and to which shall be charged, at the time of retirement, exchange for Capital Stock, or other disposal, the amounts previously credited.

10. CAPITAL AND SURPLUS—10.3 Surplus

This classification shall include surplus, surplus from appreciation on account of revaluation as of March 1, 1913, or at date of discovery or other appraisal, appropriations of surplus, and earned surplus unappropriated.

The following sub-accounts shall be maintained:

10.30 Capital Surplus Paid In
10.31 Surplus from Appreciation—March 1, 1913
10.310 Total Appreciation
10.311 Realized Appreciation
10.32 Surplus from Appreciation—Discovery
10.320 Total Appreciation
10.321 Realized Appreciation
10.33 Surplus from Appreciation
10.330 Total Appreciation
10.331 Realized Appreciation
10.34 Earned Surplus (Appropriated)
10.35 Earned Surplus (Unappropriated)

In consolidated balance sheets, an account will sometimes be necessary to cover the equity of minority stockholders in subsidiary companies. This equity is ascertained by determining the proportion of capital stock held by minority interests in subsidiary companies, and setting aside in the process of consolidation, such proportion of the book value as inures to such minority interests.

10.3 Surplus—10.30 Capital Surplus Paid In

To this account shall be credited premium received on the sale of Capital Stock of the accounting company, payments on stock subscriptions forfeited, assessments on Capital Stock, excess over par value of tangible assets received for Capital Stock, donations to the corporation by stockholders, or profit on sales of treasury stock.

To this account shall be charged discount on the sales of the Capital Stock of the accounting company, and dividends declared after the exhaustion of other surplus accounts.

10.3 Surplus—10.31 Surplus from Appreciation—March 1, 1913

This classification shall include surplus arising from appreciation of oil and gas lands and leases as of March 1, 1913.

The following sub-accounts shall be maintained:

10.310 Total Appreciation
10.311 Realized Appreciation

When preparing balance sheets, the realized Appreciation carried in Account 10.311 should be shown as a deduction from the total appreciation carried in Account 10.310, the difference being Unrealized Surplus from Appreciation—March 1, 1913.

THE following trade association representatives are assisting the institute's accounting committee in arriving at a uniform general balance sheet:

National Petroleum Association—P. S. Tarbox.

Mid-Continent Oil and Gas Association—W. K. Cottrell, S. C. Beesley, and A. B. Hookins.

National Association of Independent Oil Producers—H. M. Rush and W. O Ligon.

American Oil Men's Association—P. D. Sweney and W. F. Probst.

10.31 Surplus from Appreciation—March 1, 1913—10.310 Total Appreciation

To this account shall be credited the excess of the value of oil and gas lands and leases as of March 1, 1913 over book value.

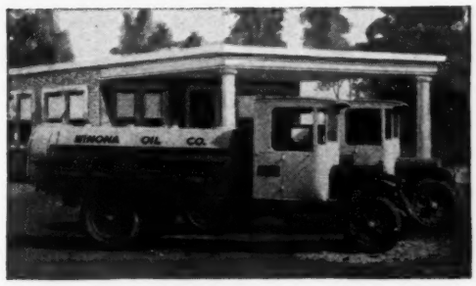
To this account shall be charged amounts disallowed after conference with the Treasury Department.

10.31 Surplus from Appreciation—March 1, 1913—10.311 Realized Appreciation

To this account shall be credited and concurrently charged to Account 10.35 Earned Surplus (Unappropriated), the difference between depletion computed on March 1, 1913 valuation and depletion computed on cost.

To this account shall be charged dividends declared after the entire amount

The Truck Tank of tomorrow is here today!



"We have about Two Hundred Columbian Truck Tanks In Service"

. . . "most of them are the Partition Mounted, Three Point Supported jobs—the rest, the old cradle mounted type."

And, Mr. W. E. Anderson, President of the Winona Oil Company, Winona, Minnesota, in a letter published in The Truck Tank Hand Book, gives the following as some of the reasons why his company long ago standardized on Columbian Truck Tanks.

"As 75 per cent of our trucks are operated in the country, we have a fine opportunity to compare the two types. You no doubt will be interested to know the Three Point Supported tanks are in every respect the more durable, economical and convenient to handle."

"Broken truck springs always were a frequent occurrence on trucks under the old cradle mounted tanks. *We have never yet had a broken truck spring under a Three Point Supported truck tank.*"

COLUMBIAN STEEL TANK COMPANY
EST'D 1894
TANKS FOR THE WORLD
1405-1625 WEST 12TH STREET KANSAS CITY, MISSOURI

of earned surplus has been distributed in dividends.

10.3 Surplus—10.32 Surplus from Appreciation—Discovery

This classification shall include surplus arising from appreciation of oil and gas lands and leases on account of discoveries.

The following sub-accounts shall be maintained:

10.320 Total Appreciation

10.321 Realized Appreciation

When preparing balance sheets, the realized appreciation carried in Account 10.321 should be shown as a deduction from the total appreciation carried in Account 10.320, the difference being Unrealized Surplus from Appreciation—Discovery.

10.32 Surplus from Appreciation—Discovery—10.320 Total Appreciation

To this account shall be credited the excess of discovery valuation of oil and gas lands and leases over cost, or, in cases of properties having March 1, 1913 valuation, the excess of discovery valuation over March 1, 1913 valuation.

To this account shall be charged amounts disallowed after conference with the Treasury Department.

10.32 Surplus from Appreciation—Discovery—10.321 Realized Appreciation

To this account shall be credited and concurrently charged to Account 10.35 Earned Surplus (Unappropriated), the difference between depletion computed on cost or March 1, 1913 valuation.

To this account shall be charged dividends declared after the entire amount of earned surplus has been distributed in dividends.

10.3 Surplus—10.33 Surplus from Appraisal

To this account shall be credited surplus arising from revaluations of plant, property and equipment, except such surplus as may be included in Account 10.31 Surplus from Appreciation—March 1, 1913, or Account 10.32 Surplus from Appreciation—Discovery.

To this account shall be charged the amount of depreciation computed on the excess of appraised values over cost and dividends declared after the entire amount of earned surplus has been distributed as dividends.

10.3 Surplus—10.34 Earned Surplus (Appropriated)

To this account shall be credited amounts specifically set aside from earned surplus by appropriate action of the Board of Directors, such as reserves for new construction, sinking funds, insurance, employees' pensions, and other contingencies, whether or not actual funds are specifically set aside in cash or other assets.

To this account shall be charged such amounts as are returned to Account 10.35 Earned Surplus (Unappropriated) by action of the Board of Directors.

Appropriate sub-accounts shall be maintained to meet the particular requirements of each accounting company.

10.3 Surplus—10.35 Earned Surplus (Unappropriated)

To this account shall be transferred the net balance of the current profit and loss account.

To this account shall be credited amounts previously transferred to Account 10.34 Earned Surplus (Appropriated), and subsequently returned to Account 10.35 Earned Surplus (Unappropriated).

To this account shall be charged the amount of dividends declared, and specific appropriations of surplus made by the directors of the accounting company.

To this account shall be charged or credited adjustments made during the current accounting period, which apply to prior accounting periods.

Uniform Accounting Said to Instill Confidence

"The purpose of the uniform balance sheet and the income and surplus accounts, with test, for the oil industry, which is now being formulated by the American Petroleum Institute's committee on uniform methods of oil accounting, is to provide member companies with a clear-cut, well defined uniform scheme of accounts for recording and reporting the business transacted and the financial results," said H. A. Gidney, comptroller of the Gulf Oil Corp. and a member of the institute's committee.

"When member company representatives use this scheme of accounting in their records and reports, exactly as defined in the text which governs the nature and use of the accounts, the stockholders, bondholders, customers, employes and people in general who may be interested, will, as they become familiar with this system, put more reliance in published statements. Not only will the responsible officials of oil companies know more about the affairs of their own companies, but they will present to others the facts so that they may be better understood and accepted at face value. It will then also be possible to compile on a more comparable basis the published statements of oil companies. This is advantageous from many angles.

"The cooperation of governmental agencies, banking institutions, stock exchanges, business and trade organizations in accepting and urging the use of this accounting system as finally adopted is essential to bring about its universal adoption."

New President of Pierce Petroleum

—*Underwood & Underwood*

Edward L. Levy, president of Pierce Petroleum Corp. Mr. Levy at one time was an executive with the Santa Fe railroad and later was interested in several South American packing plants. He was elected to the presidency Dec. 15, 1925, succeeding Clay Arthur Pierce. He was an executive with the Emergency Fleet Corp. during the war.

Oil Possibilities of Southeast Utah And Southwest Colorado

A summary of geological information on an area of present importance, compiled by the U. S. Geological Survey.

THE exploratory campaign for oil carried on in 1925 in the Rocky Mountains resulted in an outstanding discovery early in December, when a well on the Cane Creek dome, near Moab, Utah, began producing oil. This discovery suggests that in parts of southeastern Utah and southwestern Colorado notable quantities of oil may be obtained from the Pennsylvanian formation that now yields oil at Cane Creek and possibly from younger rocks in which oil may have accumulated by upward migration.

Because of these possibilities it seems worth while to summarize briefly the results of a reconnaissance study of this region that was made during the summer of 1925, by W. T. Lee and W. W. Boyer, of the Geological Survey, Department of the Interior, and also the results of an examination of the San Rafael Swell by James Gilluly, of the Survey.

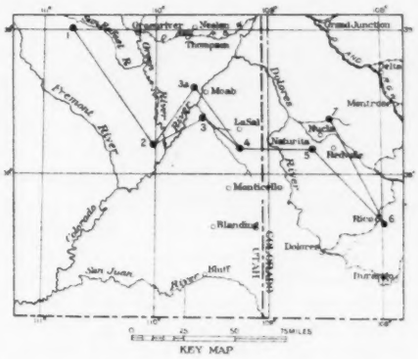
From information gathered by these field studies and from data already made available by previous geological investigations, it seems probable that conditions similar to those recently found near Moab exist at other points in Utah south of the Denver & Rio Grande Western Railroad and east of Green River (or east of the 110th meridian), and also in the adjacent part of Colorado south of the Uncompahgre Plateau.

Sedimentary Rocks

THE rocks exposed in southeastern Utah and southwestern Colorado that are of present interest to the oil producer range in age from Pennsylvanian to early Upper Cretaceous. These rocks have been reviewed and described by Cross in volume 15 of the Journal of Geology, and a more recent and detailed description of the formations has been given by Coffin in Bulletin 16 of the Colorado Geological Survey. The facts noted by Lee and Boyer confirm in part this earlier work, although they suggest a need for the modification of some interpretations. The formations now recognized in the area are shown in the accompanying chart and are described below in order of deposition from the earliest to the latest.

Pennsylvanian Rock

Hermosa formation—Near Rico, Colo., the Hermosa formation is 1800 to 2000 feet thick. Its lower part consists of black bituminous shale and limestone and these beds are overlain by 30 feet of gypsum and 250 feet of rocks which are nowhere exposed to view but which may contain soluble materials such as rock salt. A considerable thickness of



Map of area discussed in article herewith.

salt, gypsum, black shale, and limestone was penetrated by the lower part of the Cane Creek well, and beds of salt and gypsum that contain petroliferous limestone are exposed in the Paradox Valley and other anticlines or have been penetrated by wells drilled on these folds. About 3000 feet of interbedded salt, gypsum and bituminous shale are present beneath Paradox Valley, but this apparent thickness may be local and abnormal and may have been induced by flowage of these plastic beds.

Beds of Pennsylvanian age yield the oil found near Moab and are tentatively regarded as equivalent to part or all of the Hermosa formation of southwestern Colorado and to the lower part of the Goodridge formation of the San Juan Valley, as described by Woodruff in Bulletin 471 of the Geological Survey.

Permian Rocks

Rico and Supai (?) formations—At its type locality in southwestern Colorado the Rico formation, of Permian (?) age, consists of 300 feet of reddish arkosic sandstones, together with some shales, conglomerates, and thin limestones, and resembles in thickness and lithology the 380 feet of strata that underlies the Coconino sandstone in the San Juan Valley, which is tentatively referred by Miser to the Supai formation. In the upper part of the Goodridge formation predominantly red strata, not greatly unlike the overlying Supai (?), contain a pelecypod fauna and in this respect resemble also the Rico formation of Colorado—facts which may indicate that the upper part of the Goodridge and possibly part of the Supai (?) are equivalent to the Rico formation. Beds of Rico age may be present under cover in many places in southwestern Colorado and southeastern Utah, although apparently they eroded from at least the more pronounced uplifts, such as the Uncompahgre Plateau.

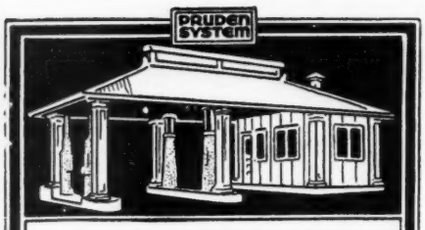
Coconino sandstone—The Coconino standstone, of Permian age, is a conspicuous formation west and north of the San Juan oil field, but it thins out eastward and is absent at Bluff and Moab. In contrast with this decrease in thickness, the sandstone that forms the natural bridges southwest of Monticello and is possibly equivalent to the Coconino is more than 1000 feet thick near the bridges and is about 1000 feet thick near the mouth of Green River.

Triassic Rocks

THE rocks of unquestioned Triassic age in the San Juan River region of southeastern Utah comprise in ascending order, the Moenkopi formation, Shinarump conglomerate, and Chinle formation. Beds of variable appearance and composition that belong to the lower part of the red-bed series lie uncomformably on the Pennsylvanian rocks that are exposed near Moab. These beds are assigned by Cross and Coffin to the Cutler and Dolores formations. The upper part of the conglomeratic red beds, which constitute the Dolores formation as the term was applied by Cross near Telluride, is correlated confidently with the Chinle formation of southern Utah, and the contact of this unit with the overlying Wingate sandstone, where that formation is present, furnishes one of the most convenient key horizons for stratigraphic tracing available in the area here described. The correlation of the lower part of these conglomerate red beds, in which petrified wood and fossil bones and teeth are commonly found, is, however, uncertain, though it may correspond to the Shinarump conglomerate, as suggested by Cross.

The Cutler formation at its type locality near Ouray, Colo., intervenes between the Dolores and Rico formations and consists in part of red calcareous sandy shales that may correspond to the gypsum-bearing beds which are locally exposed in the Moab region. Some of the gypsum beds that overlie the Pennsylvanian limestones near Moab may, however, actually belong to the Rico formation, whereas a part of them, at least, are believed to be referable to the Triassic Moenkopi formation. Possibly the marine gypsum-bearing Moenkopi of southern Utah may represent the seaward equivalents of the Cutler conglomerates.

The beds between the Chinle and Hermosa (?) formations of southeastern Utah are markedly variable in thickness and may be divisible into several for-



Beautiful
Steel Buildings

YOU can't realize what attractiveness of design is possible in steel until you have our circular illustrating **PRUDEN SYSTEM** copper-alloy galvanized steel buildings. *Send for it.*

Pruden System buildings, by their beauty of appearance, invite patronage. They are the most practical type of service station buildings, in every respect.

They are strong and lasting, with the slightest of depreciation through years of service. They are absolutely fireproof, being made *entirely* of steel. They are quickly erected, and portable. They can be perfectly insulated against heat and cold. And they are low in price.

The **METAL SHELTER Co**
WABASHA & WATER STS.
SAINT PAUL, MINN

"CUT OIL"

is a problem in CHEMISTRY

An "emulsion" represents a condition of a liquid which can be fully, scientifically and economically corrected by use of the chemical process. Use TRET-O-LITE process when you have cut oil and tank bottoms that require treating.

Wm. S. Barnickel & Co.
St. Louis, Mo.

Tret-O-litE

Reg. U. S. Pat. Off.

mations, one or more of which may have been extensively eroded during pre-Chinle time. Near the road from Valley City to Moab, just north of Colorado River, the interval between the Chinle and the Hermosa (?) is occupied by 950 feet of conglomerates with which are interbedded some shales, sandstones, and flinty limestones. The lowest of these conglomerate beds contains fossil wood which resembles that of the Chinle. In Lisbon Valley similar beds are 1400 feet thick. In Salt Valley, 8 miles north of Castleton, and in Paradox Valley, Colo., partial measurements show respectively 1300 and 1200 feet of conglomeratic beds beneath a bed that appears to be the base of the Chinle, and the conglomerates in Paradox Valley contain fragments of fossil wood and fossil teeth similar to those in the Chinle.

The beds just described form the lower part of the Dolores and Cutler beds as mapped in Colorado by Coffin and were tentatively referred to the Permian by Cross. They are designated Carboniferous on the geologic map of Utah published with the Geological Survey's Professional Paper 111, although fossil bones, teeth, and wood since found in them suggest that part or all of them should be referred to the Triassic.

Jurassic (?) Rocks

THE rocks now tentatively assigned to the Jurassic and believed by Lee and Boyer to be undoubtedly Jurassic include in ascending order the Wingate sandstone, the Todilto formation, and the Navajo sandstone. These formations have not yielded fossils, but they compose a related group of beds that is overlain by beds which contain a marine fauna of Upper Jurassic age.

Wingate sandstone—The Wingate is a great cliff-making sandstone, and its color suggested the name Vermilion Cliff sandstone, which has been applied to it by some geologists. It lies uncomformably on the Chinle formation and is the oldest of the probable Jurassic formations represented in this region. In some places, where the Todilto is not recognized, the Wingate and the overlying Navajo sandstone are not clearly separable. Over wide areas, however, where the two are distinct, the Wingate sandstone maintains a relatively constant thickness. It is cross-bedded but less conspicuously so than the Navajo, and it usually breaks into columnar blocks on weathering. It is about 500 feet thick in southeastern Utah and is somewhat thinner in eastern Utah, where it has been called the "upper Dolores sandstone" by Cross and others. It persists eastward into the vicinity of Grand Junction, Colo., where it is about 300 feet thick, but is absent farther south. Near Telluride the basal La Plata or Navajo sandstone rests uncomformably on the conglomeratic beds of the Dolores formation, which are correlated with the Chinle formation. In other places in western Colorado probable representatives of the Wingate have been included in the Dolores formation.

This eastward thinning and final disappearance of the Wingate sandstone may be due to nondeposition or to lateral change in lithologic character or to erosion after the sandstone was laid down.

At every exposure that was examined the Wingate sandstone gives place abruptly at its base to the Chinle beds. The contact is irregular, as if it represented an old surface of erosion. This irregular contact and the irregularity in thickness of the underlying Chinle beds seem to indicate an uncomformity of wide extent.

Todilto formation—The rocks here called the Todilto formation consist of platy red sandstones that contain thin layers of shale. Pebble beds are found in the formation in a few places. In southeastern Utah the Todilto does not differ conspicuously from the underlying Wingate sandstone. It is locally absent, and its maximum observed thickness is 200 feet.

Navajo sandstone—The Navajo is a light-colored, massive, strongly cross-bedded unfossiliferous sandstone. It seems to attain its maximum thickness in southern Utah, where it is about 1000 feet thick, and it thins toward the north and the east. Near Green River, Utah, it is little more than 300 feet thick, in southwestern Colorado it is less than 200 feet, and farther to the north and east it is still thinner.

The Navajo sandstone lies with apparent conformity upon the preceding beds in the western localities, but the presence of an unconformity beneath it is clearly evident in its more easterly exposures, where it overlaps the older formations and finally rests on pre-Cambrian granite.

Jurassic Rocks

THE rocks now assigned without question to the Jurassic have recently been divided into four formations, to which in forthcoming reports by Gilluly and others, are applied in ascending order the names Carmel formation, Entrada sandstone, Curtis formation, and Summerville formation. The Carmel and Curtiss contain marine fauna of Upper Jurassic age, and the Summerville is so closely related to the fossiliferous Curtis formation as to leave no room for doubt that it also is of Jurassic age.

Carmel formation—The Carmel formation is of marine origin in central Utah; in eastern Utah it consists of interbedded nonfossiliferous red sandy shales and thin-bedded sandstones with local beds of limestone and gypsum. The formation in the eastern region contains erosional unconformities that may lie at different horizons in different places, and some of the strata are markedly crinkled, characteristics which aid in identifying the formation. The Carmel is apparently equivalent in age to the middle part of the La Plata sandstone of western Colorado and together with the overlying Entrada and Curtis formations was included in the "McElmo formation" as described by Lupton in his report on "Oil and gas near Green River, Utah," published in the Geological Survey's Bulletin 541, although all three are now known to be older than type "McElmo."

The Carmel is 300 feet thick near Bluff and 100 feet thick near the mouth of San Rafael River and grows gradually thinner eastward.

Entrada sandstone—The Entrada is a cross-bedded sandstone that is 500 feet thick in central Utah and thins eastward. It is the sandstone near Moab that was regarded by Cross as "upper La Plata," and it has the same relative stratigraphic position as the upper part of the La Plata sandstone of western Colorado, which is 50 feet thick near Telluride. It contains manganese near Green River, and it forms many alcoves and natural bridges and is the monument-forming sandstone of Bluff, Utah.

Curtis formation—The Curtis formation consists of marine sandstones and shales that lie unconformably upon the Entrada sandstone. The Curtis is 50 feet thick near Green River and apparently thins out eastward.

Summervil'e formation—The Summerville formation is typically developed in the San Rafael Swell. It consists of red shaly sandstones, sandy shale, and beds of limestone and gypsum, which seem to correspond to the older part of the "McElmo formation" as exposed in McElmo Canyon, Colo. The Summerville is closely related to the underlying fossiliferous Curtis formation and hence is regarded as of Jurassic age. It commonly contains concretions of chalcedony and yields manganese dioxide near Green River, Utah. The Summerville is 125 feet thick near the mouth of San Rafael River and less than 100 feet thick at the Colorado line; it either thins out completely or changes in lithologic character toward the southeast, so that it is not readily distinguishable from the "McElmo formation."

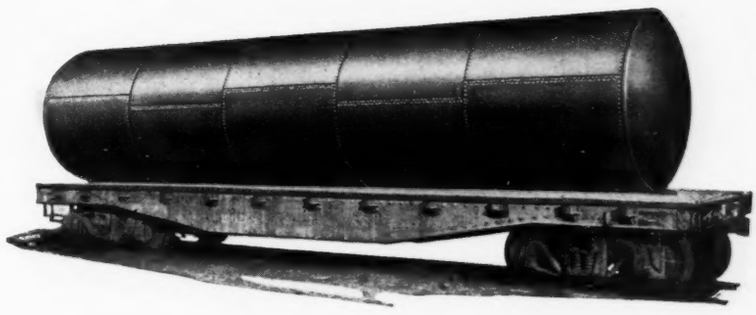
Cretaceous (?) Rocks

Morrison formation—As here identified the Morrison formation consists of the Salt Wash sandstone member and overlying variegated sandy shales of characteristic Morrison type. In earlier reports on southeastern Utah and southwestern Colorado these beds have been included in the "McElmo formation."

Salt Wash sandstone member—The Salt Wash sandstone, which has previously been classed as a member of the "McElmo formation," lies unconformably upon the Summerville and consists of ledge-making, more or less conglomeratic sandstones, containing dinosaur bones, petrified wood, and fresh-water shells, which are interbedded with minor amounts of red and varicolored shale. The conspicuous lithologic character of the member facilitates its recognition, and it yields most of the carnotite and vanadium ore that is mined in southwestern Colorado and eastern Utah. It is most prominent in Colorado, where it is 400 to 500 feet thick, and less so in Salt Valley, northwest of Moab, Utah, where it is 140 feet thick; it thus grows progressively thinner toward the west.

Variegated shales—The variegated shales so characteristic of the Morrison formation were formerly classed as forming the upper part of the "McElmo formation." They are variable in thick-

SISTERSVILLE TANKS
MADE IN THE HEART OF THE OIL COUNTRY



THE demand for Sistersville Tanks in the East and throughout the Mid-West has grown tremendously during the past six months. To this we attribute the high quality of materials and workmanship, the strategic factory location, strict methods of standardization and our past reputation for building *a better tank*.

The name Sistersville has for more than half a century been associated with the oil industry and it is only natural that this word should have great significance to oil men everywhere. Our standard riveted welded and our extra strong riveted welded types of construction have attracted world wide attention.

(Filling Station—Bulk Station—Pressure—Oil Field—Fuel Oil—and all Liquid Steel Storage Equipment)

Write today for our latest illustrated folder

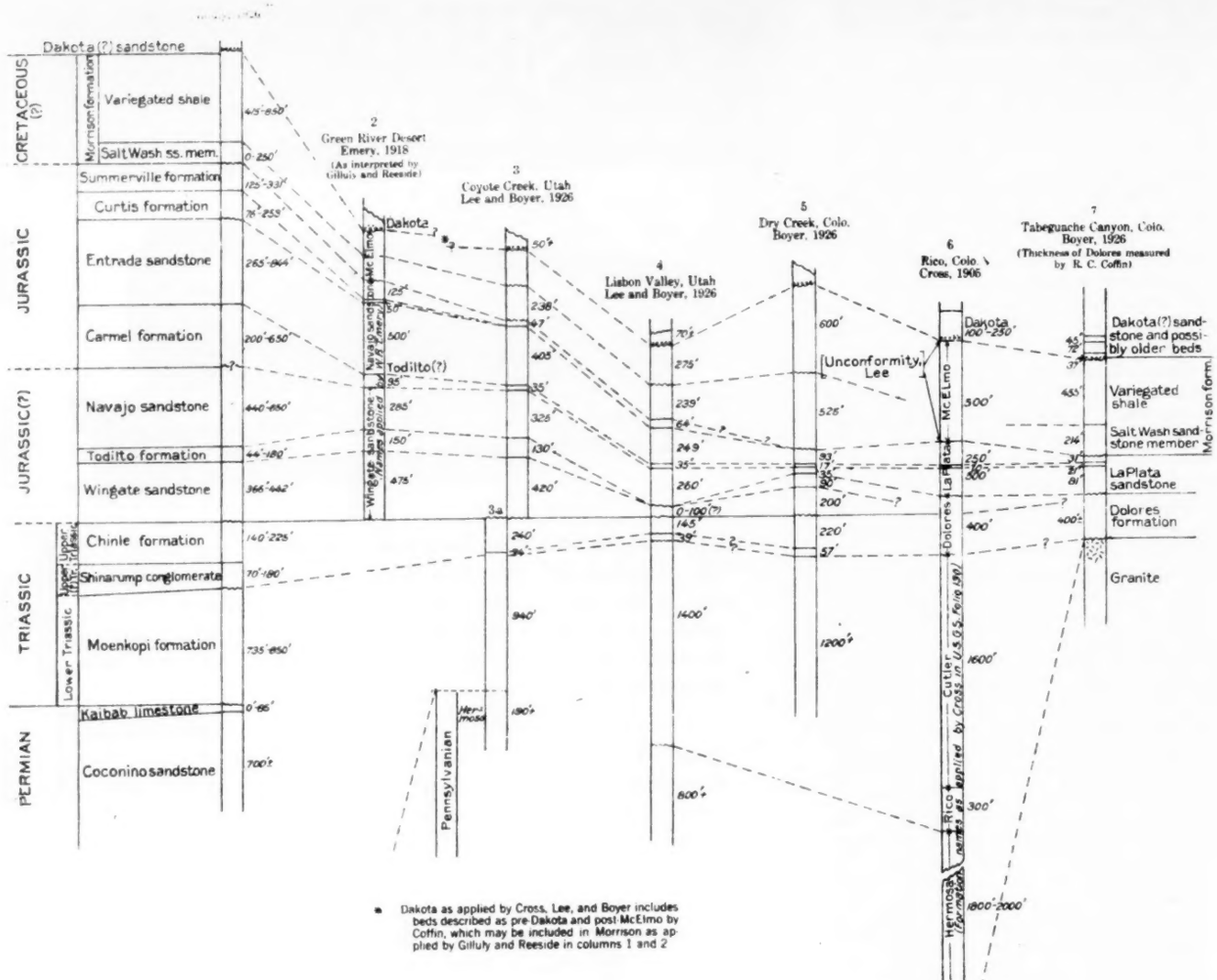
SISTERSVILLE TANK & BOILER WORKS
SISTERSVILLE W. VA.

Vogt Products For The Oil Refiners

We manufacture Paraffine Wax Presses, Distillate Chilling Machines, Stills, Auto Truck Tanks, Special Refinery Equipment, Boilers, Refrigerating Machinery, Drop Forged Steel Valves, and Fittings. Bulletins On Request.

Henry Vogt Machine Co.
Incorporated
Louisville - - - Kentucky

Branch Offices
New York Chicago
Philadelphia Dallas



This chart shows formations of southeast Utah and southwest Colorado as now recognized.

ness, though of uniform lithologic character throughout the area here described. They consist of minor local beds of channel conglomerate interbedded with variegated sandy shales such as those characteristic of the Morrison of the Front Range. In the easterly localities the variegated shales lie unconformably on the Salt Wash member, and their observed thickness ranges from 275 to 600 feet. In the westerly localities there seems to be no break between the Salt Wash member and the overlying variegated shales.

Beds of Undetermined Age, Believed By Some To Be Dakota and By Others To Be Pre-Dakota

ABOVE the beds accepted generally as Morrison lies a variable group of beds which begins at many places with a siliceous conglomerate that is succeeded by highly colored shales and these in turn by coal-bearing sandstones and shale. At other places a basal conglomerate is succeeded directly by coal-bearing sandstone and shale. At still other places, especially in the westerly localities, there is no conglomerate but only sandstone, with or without coal-bearing beds. The colored shale division, at places more than 100 feet thick, consists of pink and greenish-blue sandy shales and is most prominent in the westerly localities in Utah, where the conglomerate and colored shales have been assigned by Lupton and others to the "McElmo formation" and by some later students of the region to the Morrison formation. In Colorado, where the conglomerate is usually thick and the colored shales thin or absent, they have been described by Coffin as "pre-Dakota" and "post-McElmo." Lee and Boyer, on the other hand, believe that the conglomerate and overlying shales belong to the lower part of the Dakota formation as delimited by Cross.

Upper Cretaceous Rocks

Dakota (?) sandstone—In most places a sandstone lies between the colored beds, where these are present, or the carbonaceous beds, where coal occurs, and the overlying Mancos shale. This sandstone is the Dakota sandstone of some geologists and is the upper sandstone of the Dakota of those who include the colored beds and conglomerate beneath them in the Dakota formation.

Mancos shale—The Mancos shale, which is of Upper Cretaceous age, is a dark shale of marine origin. In most of the area examined only a thin remnant of this shale remains, and little attention was given to it.

Correlations

THE Cretaceous beds are those of possible Cretaceous age—that is, down to the base of the Salt Wash member of the Morrison formation—are readily recognizable, persistent and reasonably regular in thickness. Also the beds of Upper Triassic age, the Chinle formation, and possible the Shinarump conglomerate and their equivalents in Colorado, the Dolores formation, are readily identified by their peculiar lithologic character and their fossils. The subdivision of the beds between these two horizons are correlated from place to place with some doubt. These subdivisions are irregular in thickness and the sedments represent accumu-

lations near the eastern margin of a basin which seems to have been only intermittently occupied by sea water. Within the area here considered they range in thickness from more than 2000 feet at the west to less than 200 feet at the east, in a distance of about 100 miles. This rapid diminution in thickness in beds chiefly of nonmarine character suggests the need of much more careful tracing of individual beds than has yet been done, before correlations of the subdivisions can be made with confidence. The relations described above seem reasonable but should be checked and verified. The Wingate sandstone and the Navajo sandstone are readily recognized in most places where they occur together. But in some places, where only a small exposure is visible, it seems impossible to determine which sandstone is represented. Recognition of the still younger Jurassic beds is even more difficult without careful mapping to determine which beds thin out and which persist.

More precise correlation of the formations of Triassic and Carboniferous age is highly desirable, but such correlations can not be made without additional information. The petroliferous Pennsylvanian rocks may once have extended over the Uncompahgre Plateau and may have been removed by erosion, but their lithology and the character of their fauna suggest that they were deposited in an embayment southwest of the Uncompahgre Plateau, which had an intermittent connection with the Pennsylvanian sea of areas east of the Rockies.

Possibilities of Obtaining Oil In The Area

THE presence of oil in Pennsylvanian beds below the salt and gypsum zone has been demonstrated by the Cane Creek well and has been suggested by the small quantities of oil and gas that were found in the Big Six wells, near Moab, and in the Crescent-Eagle well, on the northwest end of the Salt Valley anticline. Because of faulting near these wells and the concealment of the bedrock the precise significance of these wells is not determinable. In general, however, anticlines in southeastern Utah and southwestern Colorado that are underlain by the beds now productive at Cane Creek may yield oil and gas, and it is barely possible that higher sands which overlie these Pennsylvanian beds may have been saturated with oil by upward migration.

According to the work of the Geological Survey party in charge of James Gilluly, the beds that yield oil at Cane Creek may lie less than 3000 feet below the surface near the crest of the San Rafael Swell, about 4 miles west of the Carter Oil Co.'s test well that was drilled on the Sinbad Plateau in T. 23 S., R. 12 E. Further exploration of the Swell therefore appears to be warranted. Similarly the possibility of obtaining oil from the McElmo dome in Montezuma County, Colo., does not appear to be excluded by the failure of the test well drilled on it in 1921 by the Midwest Refining Co. This well, which was started in the lower part of a sandstone in the Dolores formation that was identified as the Wingate sandstone, apparently entered the Hermosa formation at 2852 feet and below that depth penetrated numerous beds that yielded some oil and a considerable volume of gas, but it may not have reached the beds that are productive at Cane Creek.

The well of the Cinco Minas Co. in Paradox Valley has encountered gas under heavy pressure in salt beds that were penetrated by it, and the well of the Gilmore Oil So., on the Dry Creek anticline, 10 miles southeast of the Cinco Minas well, may or may not have reached the top of the Pennsylvanian.

Structure

MARKED folding and erosion took place prior to the deposition of the Chinle formation (presumably in early Triassic time), and similar folding may have taken place still earlier in late Carboniferous time. Minor earth movements recurred intermittently during the later part of the Mesozoic era and culminated in the great differential uplift and faulting which took place in post-Cretaceous time.

As a result of the combined effects of these deformations numerous prominent anticlinal folds, which trend northwest and expose Carboniferous and Triassic rocks, have been developed in southwestern Colorado, and other less conspicuous anticlines, which belong to the same system, have been developed in southeastern Utah between the Arizona boundary and the Denver & Rio Grande Western Railroad. The apparent southwestward decrease in the intensity of folding may, however, be more apparent than real, as post-Triassic rocks cover several of the Utah anticlines, and because of the unconformities beneath them these younger rocks are presumably less strongly folded than the underlying Carboniferous beds.

Flowage of the salt and gypsum beds, which lie above the productive beds of the Cane Creek dome, may have occurred on a considerable scale, and as a result the structure of the oil-bearing beds may not be accurately reflected by the attitude of the beds above the salt and gypsum zone. Because of the unconformities and possible flowage of salt beds it may therefore happen that the precise structure of the productive beds can be ascertained only after a considerable amount of exploratory drilling has been done.

Many of the anticlines in southwestern Colorado are described by Coffin in Bulletin 16 of the Colorado Geological Survey, and Prommel's maps of the Cane Creek and related domes and of the Salt Valley anticline in Utah are published in the Bulletin of the American Association of Petroleum Geologists for July-August, 1923. Woodruff, in a note on "Marsh gas along Grand River near Moab," in the U. S. Geological Survey's Bulletin 471, mentions the anticline 12 miles above Moab, near the crest of which methane gas escapes along the bed of Colorado River; and the McElmo anticline in Montezuma County, Colo., is mapped and described by Coffin in Bulletin 24 of the Colorado Geological Survey.

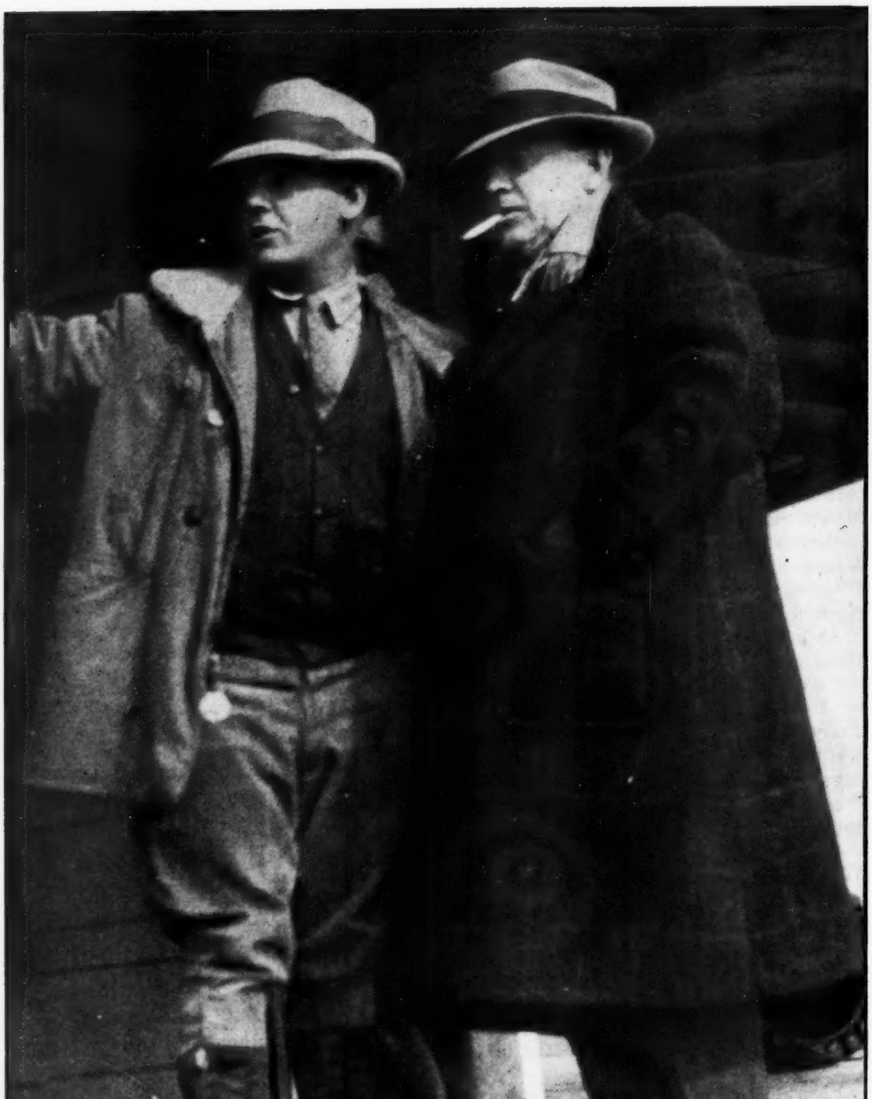
The town of Moab is situated in a valley that was formed by the partial collapse of the crest of an anticline, described by Lupton, that extended from the northwestern part of T. 27 S., R. 23 E., into the area southeast of the town of Green River. The Lisbon Valley uplift, south of the La Sal Mountains, is bounded on its northeast side by a fault that passes a little north of the southwest corner of T. 30 S., R. 26 E., and close to the Big Indian Mill, in sec. 34, T. 29 S., R. 24 E. The displacement on the fault is about 3200 feet near the center of T. 30 S., R. 25 E., and it decreases northwestward, until the fault apparently merges into the Dry Valley anticline, a gentle fold that extends northwestward across the northern part of T. 29 S., R. 23 E. The Lisbon Valley fault divides into a multiple fracture in T. 31 S., R. 26 E., and dies out in the Disappointment syncline in Colorado. The Big Indian anticline, a small, narrow fold, parallels the Lisbon fault and lies northeast of it in T. 30 S., R. 25 E., and a small fold, which exposes the Entrada sandstone, occurs in the northeast corner of T. 28 S., R. 23 E. Other folds are known to cross the canyon of Colorado River between the mouth of Indian Creek and San Juan River, and still other anticlines will undoubtedly be found in the course of further exploration, both in southeastern Utah and southwestern Colorado.

Accessibility and Conditions of Operation

THE region here considered is accessible from stations on the main line of the Denver & Rio Grande Western Railroad by a well-kept automobile road which leads southeastward from Thompson to Moab and by roads which lead westward from Dolores and other towns on the narrow-gage branch of the Rio Grande Southern Railroad. A good road leads from Moab to Monticello and Bluff, and other roads connect these towns with the railroad at Dolores; also a secondary road leads from the Moab bridge up the gorge of the Colorado to Castleton and Cisco. Few trails are passable by automobile in the area west of the Moab-Bluff highway on account of the steep arroyos and deep sand, and much of that area will be traversable only with great difficulty.

In the region east of the Moab-Bluff road water can commonly be obtained without serious difficulty, but west of the road there is little permanent water except that of Colorado River and of its deeply intrenched major tributaries.

Recent issues of trade journals report that an oil company interested in the development of the area is planning to lay a pipe line from the Cane Creek district to the Denver & Rio Grande Western Railroad near Thompson. Until oil or gas becomes available, fuel for drilling may be obtained from railroad points to the north and east or from local mines that operate on coal beds in the Dakota (?) formation at several localities east and northeast of Monticello. Wood may be obtained from the slopes of the La Sal or Blue mountains.



It isn't every day that the camera succeeds in picturing an outstanding figure in the petroleum industry at a time when that individual is thoroughly unconscious of everything except the subject matter of conversation. For that reason, the accompanying picture of Ernest W. Marland, head of the companies that bear his name, is doubly interesting. It shows Mr. Marland giving his undivided attention to certain phases of Texas Panhandle operations being explained to him by Ned Miller, one of his geologists in the Amarillo territory.

Mr. Marland, who got his start in the oil business in the old Ponca City field of Oklahoma back about 1911, is never quite so happy, his associates say, as he is when out on the ground inspecting properties in the various fields of the country.

Bureau Man Reports On Papoose Field

BARTLESVILLE, OKLA., April 24.—An engineering report on the Papoose oil field of Okfuskee and Hughes counties, Oklahoma, has been prepared by John R. Bunn, of the U. S. Bureau of Mines, Bartlesville. It includes a chapter on the geology of the field by Louis Roark, of the Kingwood Oil Co.

The bulletin is being distributed by the Oklahoma Geological Survey, Norman, Okla., 57 cents being charged to cover cost of printing.

Various phases of field work are taken up in this report, including the use of cable tool and rotary methods of drilling; coring devices; casing, including discussion of proper measurements and pipe thread lubricants.

A chapter is devoted to different phases of production work.

Worthington Brings Out New Diesel Engine

NEW YORK.—The Worthington Pump & Machinery Corp. has brought out a new, double-acting two-cycle Diesel engine which a short time ago completed a 30-day endurance test followed by several special and very severe tests at the company's plant in Buffalo. The company is building a number of this new type of engine for the U. S. Shipping Board for conversion of the board's merchant ships from coal and oil burning.

The endurance run of the new engine started Feb. 2 and the engine was operated at loads around 2900 brake horsepower at 95 revolutions a minute until March 4. At the end of this period, without stopping, the load was increased 10 per cent for a period of six hours then for a further period of four hours speed was increased another five per cent making an overload of speed and work. Those present stated that this overload at the end of a long hard run was a most unusual test for any piece of machinery, according to the company's statement. The fuel used in the test was asphalt base bunker oil of high viscosity which had to be heated before it would flow into the fuel pipe system.

It is stated that the Worthington Diesel engine reverses more easily than a steam engine. Complete reversal from full load in one direction to full load in the opposite direction was made in six seconds, it is stated.

The Worthington company believes the new engine has a big field not only for marine use but also for industrial plant use and it seems likely to find a place in pipe line pumping stations.

The engines now in building have four cylinders 28 inches in diameter by 40 inch stroke and when operating at a speed of 95 revolutions per minute have a rated output of 2900 horsepower delivered to the shaft coupling.

Pays Off Claimants

WASHINGTON, D. C., April 24.—Payment of $1,902,266.66 in impounded funds to claimants awarded leases in the Red River oil field has been announced at the Interior Department. The claimants and amounts received had previously been announced by the department.

The oil and gas leases awarded these claimants were on land in the Red River field containing producing wells from which the funds had been impounded and the payments made today represent these impounded funds less the royalty due the government.

Of the total impounded funds, the government retained $457,345, on lands to which it was decided none of the applicants had an equitable claim. The United States also received a total of $873,450 in royalties making a total accruing to the government of $1,330,795.

Oil Showings Near San Francisco Result in Further Testing

By Paul Wagner
N. P. N. Staff Writer

Article 7 in a Series on Future Oil Production of California

SHOWINGS of light gravity oil in Contra Costa and Alameda counties, California, have been recorded since 1865, but intermittent drilling down to date has failed to develop commercial production in the area across the bay from San Francisco.

It is a matter of history that test wells were put down in Contra Costa county as early as 1867, but the results obtained are no longer known. Considering that no important development followed and that commercial production is still lacking, it may be inferred correctly that established values were, at least, negligible.

A sample of dark greenish-brown heavy oil taken from the test well of the Livermore Petroleum Co. seven miles southeast of the town of Livermore, was exhibited in 1887 at the Mechanics' Fair, in Alameda county, it is recorded in the seventh annual report of the state mineralogist.

In 1888, petroleum was reported to have been found in two "deep tests" drilled near Stockton, in San Joaquin county, which adjoins Contra Costa and Alameda counties on the east.

Historical data bearing on these early tests, none of which exceeded 2750 feet in depth, has been largely lost. Generally speaking, however, it is to be doubted whether such data would throw much light on conditions helpful to present day testing operations.

Continent Making Test

THE only currently interesting test in the territory across the bay from San Francisco is a second hole being put down by the Continental Oil Co., of Denver, which in 1923 took up a block of about 60,000 acres extending 22 miles along the hills west of the Sacramento river. A first test was drilled in 31-18-4 to a depth of approximately 2000 feet, where the hole was junked. A second hole is now being drilled.

Insofar as the writer has been able to check no tests are being made currently in Alameda county, which lies immediately south of Contra Costa and which contains seepages of light gravity oil on the Hamilton ranch in the vicinity of 5-3S-3E.

With regard to Contra Costa county, which is chiefly interesting because of the Continental Oil Co's. testing operations, Ralph Arnold had the following to say in United States Geological Survey bulletin No. 340:

Structural Feature Mapped

"Geology and structure—The principal structural feature in the region of the Miner ranch is a southeastward plunging anticline which crosses Lauterwasser creek just east of the ranch house. Along the axis of this fold the following formations are exposed in order, beginning a mile or so northwest of the field and extending to its southeast edge; Tejoin (Eocene) sandstone; 200 feet of brown sandstone, possibly Vaqueros (lower Miocene); 800 feet of Monterey (middle Miocene), 300 feet shale and 500 feet sandstone, in which are intercalated minor quantities of soft shale; and finally the feebly coherent fresh-water conglomerates, sandstones and shales of the Orindan (Pliocene) formation. The petroleum deposits are in the shales and sandstones of the Miocene.

"The sandstones below and above the Monterey shale are practically alike, being brown to gray in color, medium grained and largely quartzitic. The upper sandstone is locally fossiliferous, although the state of preservation of the fossils usually precludes anything but a rough identification. The Monterey shale is fairly hard and is dark colored in fresh exposures, but weathers to a very light color.

"It (the Monterey) contains many of the yellow and gray calcareous concretions so characteristic of the Monterey at most places in the Coast Range. The shale is largely organic in origin, foraminifers and diatoms being found in it abundantly. The organic remains in the shale are believed to be the source of the oil.

"The shale is considerably contorted, especially near the axis of the fold, dips of 42 degrees S., 86 degrees E., and 40 degrees S., 70 degrees E. being recorded within a short distance of each other in the bed of Lauterwasser Creek, northeast of the Miner ranch house.

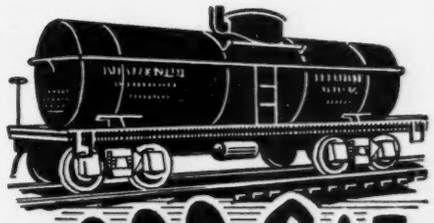
"At the same locality the shale is exceedingly petroliferous, yielding a very prominent scum of light oil when the rock in the stream bed is disturbed with a pick. The dips in the overlying sandstone are not as easily obtainable as those in the shale, but it is thought that the dip of the northeast flank of the fold grows gradually less toward the northeast.

Eight Test Wells Drilled

"WELLS—Eight wells have been drilled in the Miner Ranch field, none of which have so far been successful. They range in depth from about 570 feet to more than 2750 feet. All lie on the northeast flank of the Miner ranch anticline, and all start in the sandstone above the Monterey shale, penetrating at first the upper sands and intercalated soft shales, and the deeper ones eventually reaching the Monterey shale.

"All of the wells have shown more or less gas; in fact, the abundance of gas is one of the characteristics of this field. It is said that the gas pressure was responsible for the collapse of the casing in at least two of the wells.

"One well is said to have found a pocket of oil at a depth of about 1300 feet, which



8000 GAL. Car Unloaded in Less Than 2½ hrs.

Just the pump you want for your unloading station. Simple in construction, easy to install and easy to operate.

Only 2-Pump Outfit on a Single Base

Two pumps are permanently mounted on a single one-piece cast iron base, with power jack attached. One power equipment for pumping two kinds of fuel. Will operate without vibration on any kind of foundation.

Cast iron base under pumps forms oil pan which is tapped for drain pipe, insuring a safer and cleaner pump house.

Plunger, slow speed, and packed with special cup leathers. A special safety feature, since with any pump some air is pumped with gasoline when tank is almost empty.

Either pump may be connected to the cross-head by two machine bolts and operated separately or together.

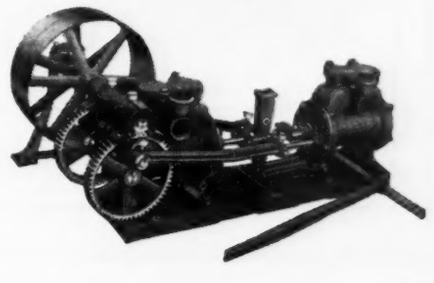
Write for Special Oil Pump and Oil Supplies Catalogs.

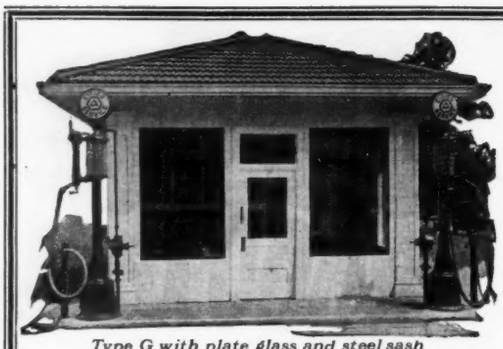
Dempster Mill Mfg. Co.

Main Offices and Factory
726 S. Sixth St., Beatrice, Nebr.
Branches: Oklahoma City, Okla.; Denver, Colo. Kansas City, Mo. Omaha, Nebr. Sioux Falls, S. D. Amarillo, Texas
Distributors: Sharpsville Boiler Works Co., Sharpsville, Pa.

Builders of satisfactory pumps and pumping equipment for over 40 years.

DEMPSTER OIL PUMPS





Type G with plate glass and steel sash

One of the 70 different types of

Shepard Stations

Your own men can erect them.

They're permanent.

Wire Collect for prices.

ARTHUR B. SHEPARD CORPORATION

Architects and Manufacturers

11 Broadway NEW YORK CITY

GULF Refining Company

General Sales Offices
PITTSBURGH, PA.
District Sales Offices
New York, Houston, Atlanta, Boston, New Orleans, Tampa, Philadelphia

REFINERS OF OKLAHOMA TEXAS AND LOUISIANA

PETROLEUM

REFINED OIL
GASOLINE
NAPHTHA
GAS OILS
PARAFFINE WAX
ASPHALT

Fuel Oil--Lubricating Oils

CYLINDER ENGINE CORDAGE

RED AND PALE PARAFFINE OILS

flowed 300 barrels of oil in nine hours. This is the only well in the field that has actually produced, with the exception of the Flood well, one and a half miles to the south, which is reported as having yielded five barrels of 29 degree oil.

Oil and Gas in Pockets

"The oil and gas apparently occur in pockets or lenses and no well defined oil sand or petroliferous zone has yet been proved to be present."

R. P. McLaughlin, then supervisor for the California State Mining Bureau, said with regard to Alameda county in the Bureau's bulletin No. 69:

"Any oil occurring in this region probably originates in the shales of Cretaceous and Eocene age, and may accumulate in favorable reservoirs of the Briones, Santa Margharita, Jacalitos and Etchegoin formations. Etchegoin sandstone impregnated with light oil was noticed in the road cut seven-tenths of a mile northeast of Tesla."

Standard Oil Co. (California) penetrated Cretaceous shale and sandstone in two test wells drilled in Alameda county several years ago. One test was drilled north of Altamont in 28-2S-3E and the other in the northwest quarter of 27-2S-3E. Aside from the fact that both tests were abandoned the data disclosed by drilling never became public.

Sand with traces of 32 gravity oil was reported at 500 feet in tests of the Fifteen Three Oil Co., in 15-3S-3E, where drilling proceeded to 600 and 1400 feet. The tests started in the Santa Margharita and Etchegoin sandstones and shales.

In 1915, Robert Anderson and R. W. Pack, after a detailed survey of conditions in the so-called Tesla district of Alameda county, had the following to say in United States Geological Survey Bulletin No. 603:

"The probability of obtaining a large quantity of oil in the Tesla district is remote, but wells producing a little light gravity oil may be obtained in very small areas. Such wells may derive their oil either from sandy beds in the Cretaceous or from the lower beds of the unconformably overlying Tertiary, the latter offering the best chances.

"The areas which offer some inducements for drilling are a narrow strip along the flank of the anticline which trends east through the hills north of Tesla, where the dip of the beds steepens abruptly, and an area of low dips at the east end of the anticline, where the surface is formed by the slightly dipping undifferentiated Miocene and San Pablo formations. Outside of these two areas the possibility of finding oil seems very poor, and the writers believe that drilling in other localities will prove a waste of money."

SAN ANTONIO, TEX.—Cain Oil Co. has equipped its grease plant here with up-to-dae equipment. The ouput of the plant during an eight-hour day is 40,000 pounds. All grades of cup greases, high pressure gun greases, and gear greases are made, and special greases will be made to fill orders. William Gee is manager of the plant.

New equipment to manufacture auto soaps and roof paints has been added, according to M. B. Cain, secretary.

Oil Burner Dealers Elect Board of Governors

CLEVELAND, April 23.—The following men have been elected members of the board of governors of the dealers' division of the American Oil Burner Association.

J. W. Martell, Hylow Burner Co., Kankakee, Ill.

J. F. Siegel, Fuel Oil Burner Engineering Co., New York.

George W. Neale, Oil Burner Equipment Co., Tampa, Fla.

Oliver D. Ward, W. W. Ward & Son, Rutland, Vt.

W. F. Schroeder, Schroeder & Curry, Inc., St. Louis.

R. S. Porter, Belden, Porter Co., Minneapolis.

J. H. Woolson, Toronto, Ont.

Several vacancies on the board are yet to be filled.

Three dealer directors of the American Oil Burner Association, who are ex officio members of the dealers' division board, are:

R. S. Bohn, Preferred Utilities Co., New York, chairman of the division.

W. Schwan, Gillespie, Schwan Co., Dallas.

Frank Staples, Johnson Oil Burner Co., Chicago.

Veto Frisco Extension Into Garber Field

By Special Correspondent

WASHINGTON, April 24.—The proposal of the St. Louis-San Francisco railroad, to extend its line into the heart of the Garber oil field in Garfield county, Oklahoma, has been vetoed by the Interstate Commerce Commission. That regulating body said the only benefit to be derived would accrue to the operators in the oil field in that they would not be required to truck their oil well supplies as far as they do now. That the regulating body did not show the public convenience and necessity required the construction of the extension.

The Frisco took the position that if it could show that there would be revenue from the extension, that satisfied the requirement of the law as to public convenience and necessity. The Frisco estimated that the annual revenue would be $200 000 and that the cost of the extension would be only $146,000.

The Rock Island and the Frisco serve that field. Some time ago the former was authorized to build toward the Garber field. Behind the record, there is a feeling that the commission is of the opinion that the Rock Island extension is all that is needed in the field and that an extension by the Frisco would be a duplication of facilities.

SCOBEY, MONT.—The Westland Oil Co. claims to be the first concern in Montana to adopt the Red Hat brand of gasoline. The company is one of the charter members of the advertising branch of the National Petroleum Marketers Association.

"Increased Our Sales $50 a Day"

is what a filling station writes. Could you use a $25, $50 or $100 a day increase in sales? Go after it then—by a sure and simple means.

Add the lively attraction of Flexlume Day and Night Electric Advertising to your station. Display your name and service so they are seen blocks either way along your street—in bold, snow-white letters of glass by day; in glowing letters of light by night.

A Flexlume sign starts producing immediately and pays big dividends on the modest investment. Ask us to send pictures and facts about Flexlume producing more business and profits for a lot of gas stations. Write today.

We also build exposed lamp and other types of electric signs for those who prefer or require them.

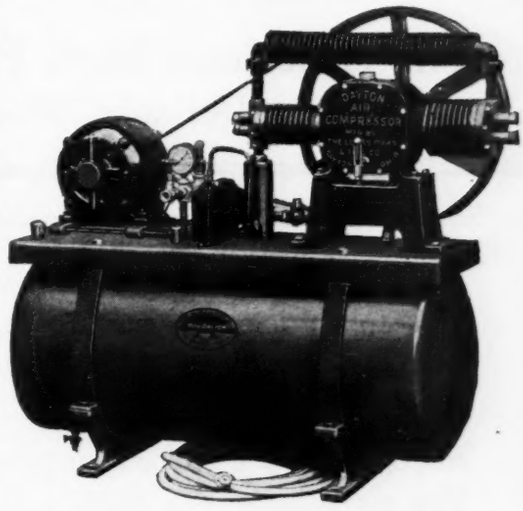
FLEXLUME CORPORATION

FLEXLUME CORPORATION
1120 Military Road Buffalo, N. Y.
Phone:
"Flexlume"—All Principal Cities
Factories also at Detroit, Los Angeles, Oakland, Calif. and Toronto, Can.

YES! **There is an intelligent reason why you should buy this compressor in preference to other types.**

DAYTON AIR COMPRESSORS

Have a special claim on your attention for the reason that they contain fewer parts than any other make. No connecting rod; no rod cap; no crosshead pin; none of the common trouble-makers enter into Dayton construction.



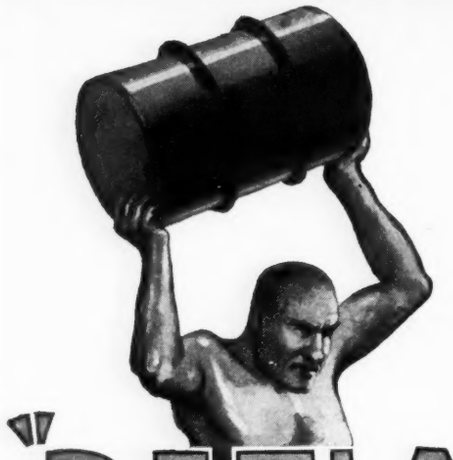
"The simpler the mechanism, the more constant the service." Daytons eliminate 90% of the repair bills; no 'Out of Order' sign needed.

THIS IS STYLE G. One of the 25 styles and 7 types described in our catalog.

Get the size you ought to have. Tell us your needs.

The Lucas Pump & Tool Co.

425 Valley St. **Dayton, Ohio**



"DEFIANCE"

Your Products Deserve Good Barrels

You spend much money, time and effort in producing your products.

You are always trying to improve those products in every possible way.

You wouldn't knowingly send out an inferior quality of oil, under any circumstances.

All this, that you have so carefully built, is assured a safe delivery to your customers when a Defiance Steel Barrel is used.

The American Steel Package Co.
Defiance, Ohio

American Operating Methods

Are explained in a concise, practical way in OIL FIELD PRACTICE, by Dorsey Hager, petroleum geologist and engineer.

It is written for the business man, the oil field driller and operator, the geologist and the investor.

You may obtain this book containing 310 pages and 98 illustrations by mailing check for $3 to—

National Petroleum News
820 Caxton Building **Cleveland, Ohio**

Call For International Pollution Conference

WASHINGTON, April 22.—An international anti-oil pollution conference, called by the United States, will be held in this city June 8. This will be in compliance with legislation enacted some time ago. Nations invited to participate in it are Belgium, Denmark, France, German, Great Britain, Greece, Italy, Japan, The Netherlands, Norway, Spain and Sweden.

Completion of recommendations by an inter-departmental committee, as to how the matter might be handled, made it possible for Secretary Kellogg to summon the conference for a concert of action by the nations, the ships of which are supposed to be the chief causes of pollution. The chief method, according to the committee, is the discharge of water ballast from the tanks of oil carrying ships. That discharge takes place within a dozen or so miles of port, beyond the jurisdiction of any one nation. Ships do not care to remove the ballast from their tanks before they are in sight of port, lest foul weather put them into trouble on account of their high freeboard resulting from the lightening of their hulls by the discharge of the water ballast.

The chief measures that have been considered by the committee, with a view to the elimination of oil pollution, according to a statement put out in connection with the calling of the conference are that ships be forbidden from pumping out oil or oily waste at sea and requiring such ships to use facilities within the harbors for the collection and disposition of accumulations of polluted water. It has also recommended that oil burning and oil cargo ships be required to install apparatus for separating the oil from the water in their bilges and tanks used for oil ballast.

Will Forward Reports To Committeemen

DALLAS, April 22.—Notice has been sent to members of all A. P. I. standardization committees by C. A. Young, director, that the annual bulletin containing reports on standardization, presented at the annual meeting of the A. P. I., will soon be sent to the members of the committees.

This bulletin will contain the recommendations on drill pipe and tubing which were adopted at the Los Angeles meeting. These will soon be published as a supplement to A. P. I. pipe specification No. 5-A. Such action is now awaiting approval of the tables of sizes, threads and gauges by the special A. P. I. committee on the standardization of gauges and gauging practice.

FOND-DU-LAC, WIS.—A new service station is being opened here by The National Oil Co. in April, reports E. A. Carey, president.

HERE & THERE

Nippon's Founder Retires

Hisahiro Naito, founder and president of the Nippon Oil Co., Marunouchi, Tokyo, Japan, which was organized in 1888, has retired from the presidency on account of advanced age. Mr. Naito has been succeeded by Keizaburo Hashimoto, formerly vice president. No other changes in members or policies have been made, according to J. Kuvita, secretary.

This company, which is the largest in Japan, is capitalized at 80,000,000 yen, has extensive producing properties in Japan, owns 11 refineries and natural gasoline plants and operates about 175 filling stations.

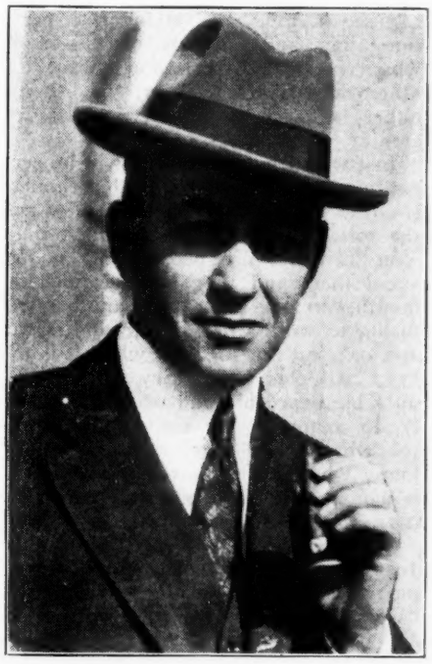
* * *

H. R. Swartout, who has been with the Sun Oil Co., Philadelphia, for 12 years, for the past seven years assistant manager of the Detroit branch of the company, has been transferred to Cleveland, where he is district sales manager.

Mr. Swartout specializes in industrial lubrication problems. His headquarters are in Society for Savings Bank Bldg.

* * *

Sterling B. Russell, Little Rock, Ark., has been appointed vice president and assistant manager of E. R. Russell Oil Co., Little Rock, according to W. S. Stafford, secretary and general manager.



This is C. W. Stratford, head of the technical department of the Associated Oil Co. which was recently merged with the Tide Water Oil Co. The merger brings Mr. Stratford back among his former associates for he was for many years with the Tide Water before going to California and he was active in developing Veedol, Tide Water's widely advertised motor oil.

Apparently these officials of the Barnsdall Corp. are trying to decide who will buy the tickets when the doors are opened for the matinee, which the sign says is scheduled for 2 p.m. The scene is the front of the Constantine theater, the place Pawhuska, and the occasion the recent Osage sale. From left to right, John A. Fryer, head of the land department, R. F. MacArthur, vice-president in charge of production, L. T. Haney, geologist, and Edwin B. Reeser, president, all of Tulsa.

Edwin G. Into, who has been in the automotive department of the Vacuum Oil Co., New York, was recently appointed domestic sales manager of the marine department.

During the war, Mr. Into was a lieutenant in the U. S. Navy and was chief engineer, electrical officer and tactical officer on one of the latest type submarines. He has also had experience in naval aviation.

After the war he became connected with the Vacuum company, and he was first in the manufacturers' service division, and later was sent to the New Haven, Conn., branch as branch engineer.

* * *

W. J. Garrett, of the Garrett Oil Co., Oskaloosa, Ia., is repainting all his stations and tank wagons dark blue, in keeping with the spring clean-up campaign. Storage tanks are being painted with aluminum paint, in an endeavor to give the best possible appearance.

Mr. Garrett recently added another truck for deliveries.

* * *

N. J. Williams, owner of the Williams Oil Co., Rockville, Mo., who has been confined to his home with an attack of "flu," is well and back on the job again.

B. F. Brundred, vice president of the Brundred Oil Corp., Oil City, Pa., has just returned to Ottawa, Kans., after a brief business trip to Oil City.

W. J. Brundred, president, who makes his headquarters at Oil City, has returned there after a trip through Oklahoma and Kansas.

* * *

William Gee manager of the grease factory of the Cain Oil Co., San Antonio, Tex., has returned from a three weeks' tour inspecting some of the larger grease plants in the country. P. J. Cain has just returned from Houston where he obtained several grease orders.

* * *

M. D. Gunn, who has been for 17 years with the Standard Oil Co. of Kentucky and for the last seven years assistant district manager at Birmingham, Ala., is now city manager at Birmingham and Bessemer, Ala., for the Sinclair Refining Co.

* * *

Guy C. Riddell, eastern manager of the N-T-U Co., New York, is in California at the company's new plant at Santa Maria. Mr. Riddell will be engaged in oil shale and mining work in the west for several months.

Gassing Slightly

By Rollin Stone

Tales of the Loaf-ers and the Fishes

SPRING is unquestionably here when the boys start reporting weird happenings from the fields. It was, we remember, in the spring when Gus Hardendorff was supposed to have bailed up the jawbone of a rhinocerous from a hole he was drilling in Salt Creek.

The Bridgeport Driller, in its current issue, publishes the following remarkable narrative:

"With fish selling at forty cents a pound what is a fish well worth? This is said to be a problem now before the owners of the Roberts farm, northeast of Electra, Texas.

"The drillers were after oil, not fish, when out of the mud from a depth of 1700 feet came, live, wriggling fish, about six inches in length. They were so hard they could not be cut with a knife and some of them appeared to be cooked.

"According to some geologists who viewed the specimens, the hardness was explained as being due to the fact that pressure in the crevice where they have been living was about 680 pounds to the square inch.

"(The 'Driller' doesn't vouch for the truth of this story. We are only passing it on as it was told to us. It's a good fish story anyway.)"

Which is just about matched by Jimmie Maxwell, oil editor of the Wichita Falls Times:

Strange, Very Strange

THE finding of a petrified fish in an oil well near Electra at a depth of 2000 feet, reported in The Times during the past week, has brought forth many other freaks in the development of the various pools.

"The latest story, for whose authenticity Ted Harris, a local operator, vouches, happened in the Louisiana field some time ago, and was as follows. While engaged in the drilling of a well in Louisiana a difference of opinion arose between the geologist and driller as to the exact formation the bit was penetrating. The geologist contended the formation was what is known as the Mississippi lime, and the driller stood pat on its being an extra hard rock foreign to that part of the field.

"After several hours in which neither swerved an iota from his original opinion, it was decided to shut down and await the coming of the head geologist from Shreveport. Accordingly, the bailer was hoisted into the top of the derrick, where it remained for several days.

"A few days later the 'deciding factor' arrived and the bailer was lowered into the hole. It was then extracted and the contents dumped into a tub, the cuttings from which were to be analyzed.

"To the surprise of the party the water showed considerable agitation. The driller reached in the water and after feeling around extracted three live young owls from beneath the mud, and after looking around at the astounded mappers of structures and anticlines, exclaimed, 'Well, you fellows may call what I've been drilling the Mississippi lime, but I know I have been pounding on owl's nest for the last few days.'

"The explanation was made that the owls slipped into the bailer while it was in the derrick and there built their temporary home."

'Twill Soon Be a Whale

NOTE that Jimmie's fish was petrified and there was "a" fish, while the Bridgeport Driller, also talking about Electra, reports a whole shoal of live ones. It only goes to show that the farther a tale travels the better it gets. From Wichita Falls to Wichita, Kans., quite an improvement was made.

Now if someone will just trot out that hardy perennial about the 200-pound driller who goes down into an 8-inch hole to recover the lost tools, the season will be successfully opened.

Another Big Stride In Finding Oil

SO many garlands of praise have come in from the taxpayers since my recent expose of the Geo. Physical methods of finding oil to-wit and viz: the seismograph and the torsion balance, that I am emboldened to carry my researches farther.

Well, it seems that recently while the mining engineers were in convention assembled in New York, that a jolly little crowd of us scientists gathered in a room for the purpose of helping Dr. Wilbur Nelson, the state geologist of Virginia, to fix up some jokes to relate at the banquet the miners were going to hold. Dr. Nelson was the toastmaster on that occasion and managed to make all the speakers feel thoroughly ill at ease.

As is customary, the talk presently drifted away from frivolous affairs and became very deep. Then it was that the Geo. Physical stuff cropped out and the newest developments of old Geo. were explained. The explanations I shall attempt to pass on for the benefit of the oil industry.

It appears that there is now an instrument called the geophone available for locating the various clines, such as anti, syn and mono. The old fashioned machinery had some sort of indicator on it and when you found out something or other about the underground rocks, it rang a bell and everybody was entitled to a cigar. In this age of progress anything becomes old fashioned within a very short time, so here we have the geophone.

All that you do with this gadget is call up the oil sand. You put in your call in the customary way, first removing the receiver and dropping in a nickel. If your party doesn't answer, the operator will return your coin, if you insist, and once in a great while she will release the entire day's receipts and you will get a lap full of nickels.

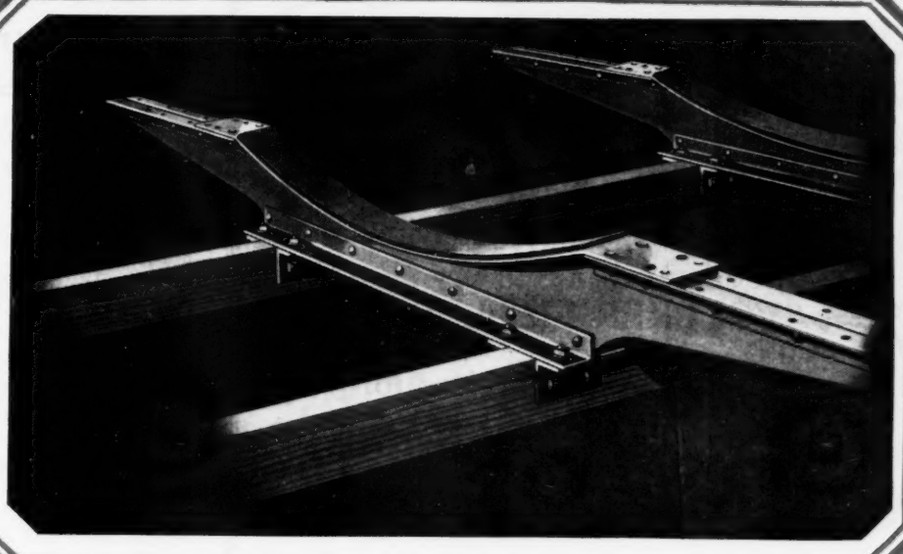
There is no refund for wrong numbers. For instance, if you put in a call for the Bartlesville and get one of those stray sands that always hang around every possible pool, you take what you get. The same way if you ask for an oil sand and get a gas sand. Wrong numbers will be the rule, rather than the exception, and it is no use asking for chief operator for the girl is not obliged, you know, to call her.

I hold here in my hand a diagram which shows just how the lines are laid out and if you stand a little closer you can see it, too. Everything is a party line affair and anybody can listen to what is said. If you don't want the other subscribers to hear, you should either be more careful of your associates or write letters.

Just when this instrument will be generally adopted, I cannot say but the day is not far off. This seismos business and the torsion balance take so much time. You have to hire people who understand them and they hang around for months on one pretext or another, refusing to work when the ground is wet and offering not to work when it is too dry. All this while they are running up a big board bill and when they finally do announce the completion of the job, what do you have? Well, you don't know what you do have, except that it is a map with a lot of funny marks on it and not a word about oil.

This geophone will speed things up. Just drop in your nickel, call for your party, explode a ton of dynamite in case you have that much lying around, and pretty soon you get a report on the sand.

Even at that, besides the annoyance of wrong numbers and party lines, the service is likely to be slower than an impatient man likes. After all, there is nothing so satisfactory as the old, reliable willow switch.



— two more reasons why Farrell Truck Tanks are better buys for you ——

Oak Sills — ***selected firsts*** — that's the best description we know for expressing the high grade quality of the clear, long grain extra strong oak used in Farrell sills. In fact— it is better timber than used by most builders.

Adjustable Sill Widths — It is not at all unusual, that because of the lasting quality of Farrell Tanks, they *outlast* the chassis on which they were first mounted, and they are changed to another model truck. The wide margin of adjustability makes possible the change without fuss or expensive readjustment. You can change a Farrell Tank from one truck to another in *less time* and at *less cost* than any other.

Also — when tanks are mounted at points, other than our plant, this feature provides for easy and economical fitting.

Yes — in every way Farrell Truck Tanks are better for you.

Farrell Manufacturing Company

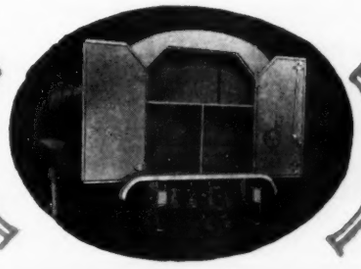
Works — Joliet, Illinois

Sales Departments

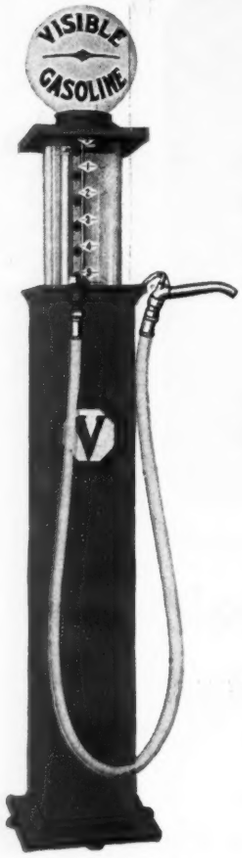
644 W. Washington Blvd.
Chicago

5459 Grand River Ave.
Detroit

It always pays to get Farrell's prices.



Ask for complete catalog and specifications.



Durability

is what counts in a dispenser. When this qualification is combined with speed and accuracy it spells "VOLCKER VISIBLES."

Why pay high prices for your equipment when the best can be bought for so little?

Price *Model P-G* *5 gallon hand*	*Price* *Model P-H* *10 gallon hand*
$68.00	**$73.00**

Volcker Mfg. Company
Riverside Drive, Huntington, Indiana

American Operating Methods

are explained in a concise, practical way in OIL FIELD PRACTICE, by Dorsey Hager, petroleum geologist and engineer.

It is written for the business man, the oil field driller and operator, the geologist and the investor.

You may obtain this book containing 310 pages and 98 illustrations by mailing check for $3 to—

National Petroleum News

820 Caxton Building **Cleveland, Ohio**

NIAGARA GASOLINE METERS

quickly pay for themselves by detecting waste or theft of oil. There are types for all uses, on gasoline, kerosene, lube oil, or fuel oil. Write us—get a catalog—find out for yourself.

BUFFALO METER CO.
2889 Main St. **Buffalo, N. Y.**

Industrial Notes

A. Y. McDonald Mfg. Co., Dubuque, Ia., manufacturer of oil marketing equipment, has opened a branch office at Kansas City, Mo. This makes five offices for the company. The other three branches are at Omaha, Neb., Des Moines, Ia., and Minneapolis.

P. A. Williams, sales manager at Omaha, will also have charge of sales at Kansas City.

* * *

Bennett Pumps Corp., Muskegon, Mich., began the operation of a tank manufacturing plant at Wichita Falls, Tex., on April 15. Oil and grease pump parts will be manufactured at the Muskegon plant and shipped in carload lots to Wichita Falls where they will be assembled with the tanks and the units completed for shipment.

* * *

Bennett Pumps Corp., Muskegon, Mich., has appointed the Republic Steel Package Co., with western offices at San Francisco, as its exclusive representative on the Pacific Coast. Stocks will be maintained at all important points. A plant is already operating at Richmond, Calif., to assemble all Bennett products on the west coast.

* * *

The Arza Oil Pump Co., Cleveland, O., has taken over the Reliable Grease Pump Co. and the Reliable Grease Demonstrator Co., which were headed by P. J. Riley, Cleveland. The Arza company is making the grease pump and the demonstrator at its factory at Cleveland, according to W. F. Lyon, president of the Arza company.

Industrial Catalogues

Hills-McCanna Co., 2025 Elston Ave., Chicago.—A booklet on special nonferrous alloys and its products, with particular attention to high tensile strength bronzes and corrosion resisting alloys, is off the press. The company believes that its appeal on a service basis for the sale of corrosion resisting alloys, rather than "wild" general claims or the showing of laboratory results, strikes a new note in this field and is a definite step toward taking the mystery out of advertised alloys.

* * *

Curtis Pneumatic Machinery Co., St. Louis.—This company which is a manufacturer of air compressors, traveling cranes, air hoists, etc., has issued bulletin C-6-A on the improved Curtis air mist system with water amplifier for use is car washing. Illustrations show construction of the system and the booklet compares the old hand-method of car washing with the new machine method.

New Oil Station Construction

Greeley, Neb.—Thomas H. Murphy, oil marketer with headquarters here, is building service station at Ericson, Neb., where he already has storage. Mr. Murphy recently bought the Mitchell Service Station and has leased it to Charles Walsh who will handle Murphy gasoline and motor oil.

* * *

Middletown, N. Y.—Middletown Oil Co. is building four-drive filling station here, which will be equipped with six visible pumps and curb and island pumps for lubricating oil. Underground tanks will be installed.

* * *

Glendive, Mont.—Hughes Oil Co., with offices here, is completing its bulk station at Charbonneau, N. D., and has completed a filling station at Glendive. according to H. N. Sample, manager.

* * *

Amherst, Tex.—Home Oil Co., which is comprised of M. T. and M. L. Walker, is building bulk station here. Three storage tanks for lubricating oils have just been installed.

* * *

Gauley Bridge, W. Va.—Payne and Warner are building filling station which will open about May 1. Pure Oil Co.'s products will be handled exclusively.

* * *

Meadowlands, Pa.—Red Star Oil Co. with general offices here, is erecting filling station at Canonsburg, Pa., reports John B. Kress, partner in the firm.

* * *

Shawnee, Okla.—Congdon Service Co. is building filling and bulk station here. Company is operated by R. W. Congdon.

* * *

Topeka, Kan.—Standard Oil Co. of Indiana completing filling station.

* * *

Lawton, Okla.—C. M. Noret to build filling station on Fort Sill Blvd.

* * *

Iowa Falls, Ia.—E. E. McFarland seeks permit for filling station.

* * *

Titusville, Fla.—Peninsular Oil Co. building $15,000 bulk plant.

* * *

Muskegon, Mich.—Broadway Oil Co. building filling station.

* * *

Illmo, Mo.—Illmo Transfer Co. to build filling station.

* * *

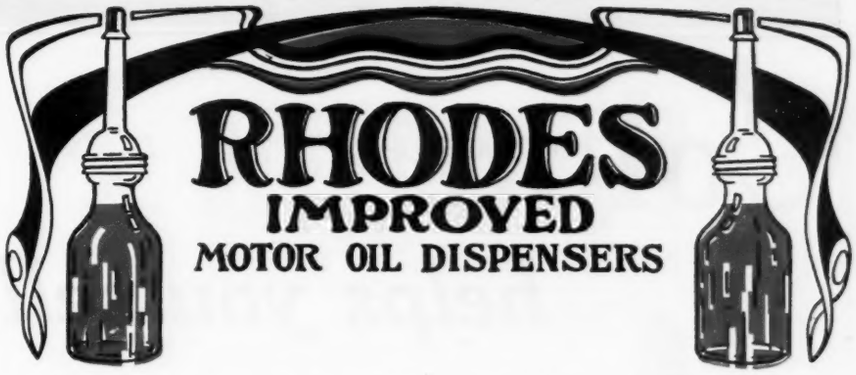
Denton, Tex.—M. B. Whitlock to build filling station.

* * *

Pine Bluff, Ark.—H. .W Tucker building filling station.

* * *

Cedar Bend, Ia.—Hallie Brady to build filling station.



Why Make Oil Your *Silent* Partner?

In selling filling station products, the big profit-maker, motor oil, often is kept the *silent* partner.

The presence of gasoline is blazoned from pumps flooded in light. Greases and heavy lubricants are displayed in brilliantly lettered cans. But what about motor oil?

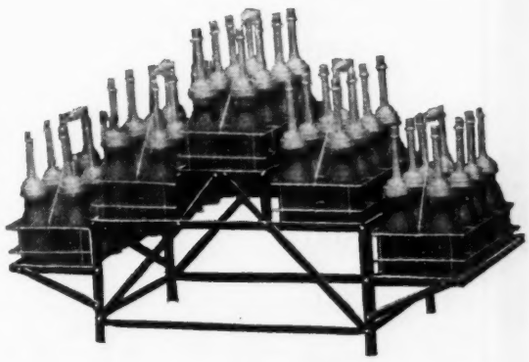
They Show the Oil

Rhodes Improved Motor Oil Dispensers with their perfect visibility, give oil high display value. Alongside your gas pumps, three or five trays of Rhodes Dispensers on a Rhodes Motor Oil Display Rack present an appearance of business-like uniformity and are a constant reminder to buy oil.

The prefilling feature of Rhodes Dispensers suggests service without delay and the accuracy and cleanliness of this service appeal to motorists.

Use Rhodes Oil-Selling Equipment in your stations and make that silent partner speak for himself.

Rhodes Motor Oil Display Racks also made in 3 Tray size.



Dispenser Sets and Display Racks are priced separately. Write us for prices.

JAY B·RHODES Co.
KALAMAZOO, MICHIGAN.

Gasoline And Other Motor Fuels

by Ellis and Meigs, is a book which gives a complete survey of the field and a description of practically every process of prominence.

The price of the book is $10. Just send us your check and we will mail a copy of it to you.

NATIONAL PETROLEUM NEWS
807 Caxton Bldg., Cleveland, Ohio

Color

helps you sell

DEEPWATER

PALE-FILTERED OILS

NOW
4
Grades of Deepwater Oils
New Process
Filtered Pales
Pales
Reds

VISCOSITY	@ 100	COLOR
100	"	2 to 2½
150	"	2 to 2½
200	"	2 to 2½
300	"	2½ to 2½+
500	"	2½ to 2½+
750	"	2½ to 2½+
1200	"	3½
1500	"	3¾
2000	"	4

A dependable supply—

A consistency of Quality

Write for Complete Specifications and Prices

Deepwater Oil Refineries

The Independent Jobber's Refiner HOUSTON-TEXAS

Oil Patents Issued Recently

Production

Wire-Line Clamp.—Frank E. Crotto, Tulsa, Okla., assignor to Western Supply Co., Tulsa. Filed March 26, 1925. No. 1,579,284.

Standing-Valve-Releasing Means.—William Werner, Mexia, Tex. Filed Nov. 16, 1925. No. 1,579,423.

Jack for Pumps and the Like.—Dick Kendall Cason, Jr., Nacogdoches, Tex. Filed April 10, 1924. No. 1,579,514.

Electric Dehydrator.—Dick Kendall Cason, Jr., Nacogdoches, Tex. Filed Aug. 16, 1924. No. 1,579,515.

Double-Stroke Deep-Well Pump.—George E. Willers, Lawrenceburg, Ind., assignor to A. D. Cook, Inc., Lawrenceburg, Ind. Filed June 16, 1924. No. 1,579,587.

Air or Gas Lift Pump.—Harvey H. Gracey, Long Beach, Cal. Filed Aug. 26, 1925. No. 1,579,606.

Tubing Clamp.—Charles S. Crickmer, Dallas, Tex., assignor to Guiberson Corp., Dallas. Filed Sept. 27, 1924. No. 1,579,648.

Well-Drilling Machine.—Albert R. Sides, Potter Valley, Cal. Filed Oct. 5, 1925. No. 1,579,667.

Bailer for Wells.—Sadie C. Winfrey, Dayton, Tex. Filed May 22, 1925. No. 1,579,685.

Oil-Well Pump.—John O. Pearson, Smackover, Ark. Filed Jan. 21, 1925. No. 1,579,734.

Driving Mechanism for Oil-Well Rigs.—Mark P. Burke, Tulsa, Okla. Filed Dec. 1, 1924. No. 1,579,753.

Derrick.—Carl H. Besse, Tulsa, Okla., assignor of one-third to Frank M. Mahan and one-third to Earnest McCarty. Filed May 11, 1925. No. 1,579,854.

Rotary Draw-Works Clutch and Brake.—Paul Yungling, Los Angeles, Cal., assignor to Oil Fields Specialties Co., Los Angeles. Filed May 21, 1925. No. 1,579,903.

Long-Stroke Pumping Mechanism.—Merton T. Archer, Pittsburgh, Pa., and Joseph R. Mahan, Toledo, Ohio, assignors to The National Supply Co., Toledo. Filed Apr. 13, 1925. No. 1,579,908.

Long-Stroke Lift for Pumping Wells.—Arthur G. Tunison, Los Angeles, Cal., assignor to Baker Casing Shoe Co., Coalinga, Cal. Filed May 11, 1925. No. 1,579,975.

Rotary Well-Drilling Apparatus.—Lee J. Black, Beaumont, Tex. Filed May 21, 1925. No. 1,580,002.

Draw Works of Rotary Well-Drilling Apparatus.—Lee J. Black, Beaumont, Tex. Filed Sept. 22, 1925. No. 1,580,003.

Refining

Purifying and Decolorizing Agent for Oils and Method of Making the Same.—Harold L. Kauffman, Parco, Wyo., assignor to Producers and Refiners Corp. Filed May 27, 1924. No. 1,579,326.

Apparatus for Converting Higher-Boiling Point Hydrocarbon Oils Into Lower-Boiling-Point Hydrocarbon Oils.—William M. McComb, New York City. Filed Mar. 2, 1921. No. 1,579,554.

Process of Treating Oil.—Gustav Egloff, Chicago, Ill. Filed Apr. 26, 1917. No. 1,579,601.

Art of Refining Oils.—Russell Wiles, Riverside, Ill., assignor to Standard Oil Co., Whiting, Ind. Filed July 11, 1921. No. 1,579,799.

Miscellaneous

Tank-Car Valve and Gauge Mechanism.—William K. Auchincloss, New York, N. Y., assignor to American Car and Foundry Co., N. Y. Filed Dec. 6, 1924. No. 1,579,203.

Indicator for Tank-Car Valves.—John J. McBride, Bayonne, N. J., assginor to American Car and Foundry Co., N. Y. Filed June 29, 1921. No. 1,579,222.

REFINING .....10 pt. bf

Block or Briquette of Lignite and Method of Making the Same.—Emil Fernholtz, Los Angeles, Cal., assignor to Fernholtz Machinery Co., Los Angeles, Cal. Filed Dec. 22, 1924. No. 1,577,902.

2 Big Savings in Air Service

MODEL 50

TWO items of expense which have been annoying service station operators are now cut out by ECO Automatic Air Service.

NO LOST GAUGES—ECO eliminates the expense of hand gauges, because it eliminates the need for them. ECO has the patented automatic shutoff that really works. Just turn pointer to pressure desired, and apply chuck to valve stem. The ECO bell rings while tire is being filled, and stops as soon as indicated pressure is reached. When bell stops, pressure is automatically shut off, and the job is done.

LESS SERVICE TIME—Where a hand gauge is used, tire-filling is really a two-man job. Attendants have to give too much "free" time helping car owners do this work. With ECO, one man can do the job faster than two men without ECO. Thus ECO makes it easy for drivers to fill their own tires, and lets the station staff spend more time at the gas and oil pumps.

Make Your Air Service Do More Real Selling

Station owners invariably find that motorists will drive blocks out of their normal route to use ECO service. The driver who once uses it, keeps coming back for ECO Service every time. And his friends come too.

Make your air equipment earn its way by bringing you more business. Put ECO Automatic Tire Inflators on your present air towers. And specify ECO equipment for all new stations.

Western Mfg. Company
Oskaloosa Iowa

ECO
Automatic Air Station
"The Station That Rings the Bell"

MODEL 20

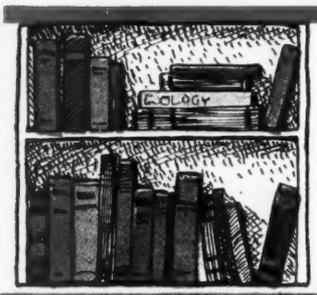
Write Today

ECO comes in eight models, sold at prices that will interest you. Rapidly being adopted as standard equipment by the larger oil companies. Write for detailed information.

Why Experiment—

MISTAKES are costly and oftentimes difficult to explain to your customers. Allison coupon books are accurate and dependable. Our prices may not be the lowest but they are consistent with our policy of giving our customers coupon books that are trouble-free.

Allison Coupon Company
Indianapolis, Indiana



Oil Man's Bookshelf

THE appetite for more knowledge comes with feeding the brain. We rise from a good book with an appetite for more.

The biggest men in the country are great readers. They read and register that which helps them.

The OIL MAN'S BOOKSHELF will help you select books on oil that you can read with the greatest profit.

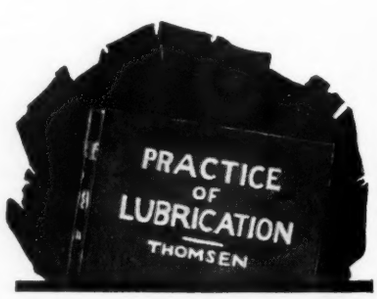
DAY'S HANDBOOK of Petroleum

In this Handbook you consult with 16 of this country's best oil experts on your business. The work is in two volumes and covers the following subjects—each by an oil expert:

Vol. I—Description of every oil field known; How to survey oil lands; Drilling methods; Petroleum and natural gas statistics; Transportation problems; Complete analysis of petroleum to hydrocarbons; Testing methods; Vapors in natural gas, etc.; Preparation, testing, uses of asphalt; Oil shale. 964 pages.

Vol. II—Refining, plant layout for various oils, specifications for tanks, stills, condensers, agitators, filter presses, etc., refinery operation, fire prevention; Cracking processes; Use of fuel oil, oil burner installations; Internal combustion engines; Lubrication; Oil pipe standards and uses; Tables. 1006 pages.

A very valuable book for reference, because it deals with every aspect of petroleum. The 2 volumes contain 1970 pages, $15, or you can order one volume at $8.



How to select, how to apply, and how to use lubricants is thoroly discussed in "Practice of Lubrication," by T. C. Thomsen, consulting engineer.

The subject of lubrication is so intimately connected with the mechanical and operating conditions of engines or machinery; this book presents for each type of engine and class of machinery, the "technical background" necessary to determine the character of the oils required to give the best service.

It points out the conditions under which lubricants have to work for particular types of machinery and the influences to which they are subjected during use.

"Practice of Lubrication" is a thorough and exhaustive treatment of every phase of lubrication.

610 pages, 227 illustrations — $6.00.

GASOLINE and OTHER MOTOR FUELS

Practically every process of making gasoline and other important motor fuels is described in "Gasoline and Other Motor Fuels" by Carleton Ellis and J. V. Meigs, Consulting Chemists.

Here's the Table of Contents:

Mixed Fuels; Testing of Motor Fuels; Gasoline Refinery Practice; Refining Methods; Sulphur Removal, Chemical Treatment, Distillation; Forwood's Processes; Distillation Under Pressure; Cracking in Stills Under Pressure; Burton Process; Coast's Processes; Cracking Heavy Oils in Liquid State; Tube and Retort Cracking in Vapor Phase; Hall's Processes and Methods; Rittman Process; Processes Using Steam; Cracking in Presence of Hydrogen, Hydrocarbon and Other Gases; Chemical Methods of Cracking Oils; Cracking and Distilling by Means of Fused Baths and Indirect Heating Means; Cracking with Aid of Internal Heat; Cracking by Electrical Methods; Condensation of Hydrocarbons from Gases; Benzol; Use as Motor Fuel and Manufacture; Alcohol as Motor Fuel; Shale as Source of Motor Fuel; Pyrogenetic Treatment of Asphalt.

728 pages — 206 illustrations — $10.

[Cut and Mail

National Petroleum News,
846 Caxton Bldg., Cleveland, Ohio.

I want the books checked below. Enclosed is check or money order for $_____

- ☐ *Day's Handbook of Petroleum.*
- ☐ *Practice of Lubrication* by Thomsen.
- ☐ *Gasoline and Other Motor Fuels* By Ellis and Meigs.

NAME _____

Address _____

_____

_____

ON THE LAZY BENCH

National Petroleum News

The Oil Reporter Turns In A Personal Item

(From the Wichita, Kans. Eagle)

Callahan Improving

C. H. Callahan, of the firm of Callahan, Ainsworth & Dingee, oil operators, is now located in the northwest corner of the southwest section of the Wesley Hospital in the northeast part of the city. Wichita physicians spudded in on Callahan a week ago and at the usual depth got a small production of gall stones showing considerable basic sediment. The tubing has been pulled and the hole is reported healing nicely. In the event the wound caves Callahan will be underreamed, the tubing reset and then shot with four quarts of aquafortis. Unless some unforeseen accident occurs "Cal" will be completed for a huge gasser and removed to his home within a few days.

❦ ❦ ❦

Among the Missing

A couple newly married were housekeeping on a budget system, to the delight of an old friend. Several months passed and when he called he asked how the budget system was progressing, "Oh, fine," was the answer, "just look!" He examined a neatly printed budget giving items of meat, milk, marketing, groceries, etc., and every so often the initials "G. O. K." with varying amounts. "That's great. But what, may I ask, are these items marked G. O. K.?" "That," was the answer, "Stands for God Only Knows!"

—Pure Oil News

❦ ❦ ❦

But Not Misrepresenting

Rufus—"Hello, Rastus."

Rastus—"Hello, Rufus."

Rufus—"A heah yo'all been quarrel'n ovah t' you' house."

Rastus—"Yessuh, dat no 'count wife ob mine am all de time got de habit ob 'exaggeratin'."

Rufus—"How come now?"

Rastus—"She done gone and had twins."

—Pure Oil News

❦ ❦ ❦

Doctor—"Deep breathing, you understand, destroys microbes."

Patient—"But, doctor, how can I force them to breathe deeply?"

—Boston Transcript.

❦ ❦ ❦

"I suppose you traveled in Europe last summer to satisfy your thirst for knowledge."

"No, just my thirst."

—Pure Oil News

The Business Man at Home

Mrs. Fletcher—Did you have a hard day at the office, dear?

Fletcher—In re your question as to my day at the office, will say that business matters were pressing and that I am very tired.

Mrs. Fletcher—Well, dear, dinner is ready.

Fletcher—Your statement re dinner duly noted, and your suggestion will be acted upon as soon as possible. In spite of all I can do it will be five minutes before I can act upon this, owing to the fact that I have just lighted a cigar. Trusting that this delay will not inconvenience you, and hoping that—

Mrs. Fletcher—Come to dinner at once! It's getting cold.

Fletcher—Your complaint has been placed in my hands by the head of the department. This will be acted upon at once. Feeling sure that you will be pleased—

Mrs. Fletcher—Well, thank Heavens! Won't you have some potatoes, dear?

Fletcher—Will go into conference with my appetite at once, and trust that we will arrive at an early decision.

Mrs. Fletcher—Please hurry, dear.

Fletcher—After a conference we are pleased to notify you that we will be highly pleased if this matter re the passing of the potatoes can be pushed through at once. Also note, the memorandum re gravy, which should accompany the order for the potatoes. Thanking you for this favor, we remain, J. H. Fletcher.

—Travelers' Beacon

❦ ❦ ❦

Serves Him Right

First Man: "How did you get that black eye?"

Second Man: "Rotten bridge."

First Man: "Fall off?"

Second Man: "No, trumped my wife's ace."

—Pennico News

❦ ❦ ❦

Sam (watching the construction of a new gasoline station): "Boy, I sez, white folks is shure intelligent."

Sam's friend: "How come you 'rive at sech a reduction, Sam?"

Sam: "Dawgone, they knows jest what lots to dig fer to get gasoline."

—Magnolia Oil News

❦ ❦ ❦

Mrs. 'Arris (seeing sky-writing for first time): "Lawk, Mrs. 'Iggins, wot be that?"

Mrs. 'Iggins: "That'll be some o' that there wireless caught fire, I'll be bound."

—Gasoline

Patent Pending

HOW MANY USES

Are there for a tin measure at a service station?

It is used for every grade of oil sold —sometimes for water. Mixing different grades of oil doesn't make good oil any better.

Serving in bottles, you don't have to mix your oils, as you can always refill with the same oil.

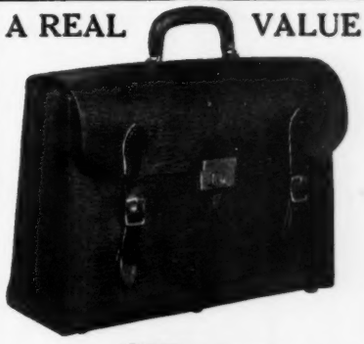
Use the NEIL ANTI-DUST DISPENSER, the only one with caps permanently fastened to the tray.

Send For Circular

Wm. Neil & Co.

617 W. Division St. Chicago, Ill.

A REAL VALUE



Complete Net only $7.50

L-U-C-E 302K Folio is made of heavy, double weight muleskin, with reinforced bottom and strong lock, handle and straps. The edges are turned and lock stitched. One of the 3 roomy pockets contains an inner Case which holds 6 four oz. bottles and 5 grease jars. It is covered with washable Keratol and lined with velvet. Your name embossed in gold *free.* Satisfaction *guaranteed.*

Other Styles in our FREE Catalog

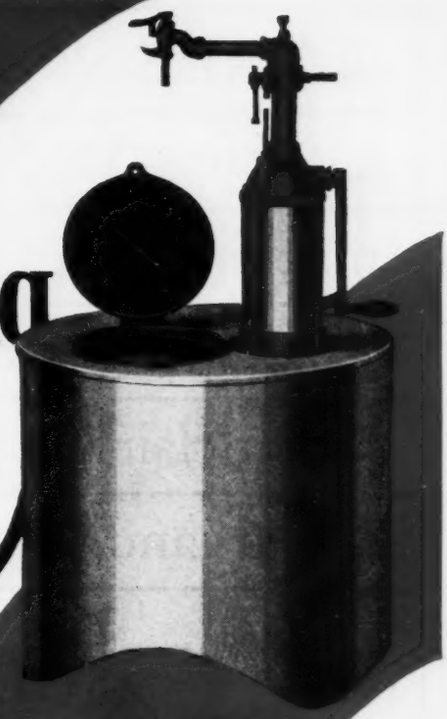
L-U-C-E

Builders of Sales Luggage

614 Delaware KANSAS CITY, Mo.

JIMMY
the Courtesy Man
Jimmy's "Courtesy Way" Pays
Every day Service Station operators in all parts of the country are finding that Jimmy's smile—Jimmy's courteous way of meeting and dealing with the public pays—and pays—and pays.
These extra profits can be yours if you will but put Jimmy's smile to work for you behind a Fry Visible Pump.
Guarantee Liquid Measure Co.
Rochester, Pa.
Fry Equipment Company, Ltd.
401 Royal Bank Building
Toronto, Ont.
Made in five and ten gallon capacities—both labeled by the Underwriter's Laboratories
FRY
Visible Pump
"Always Accurate"

Big Profits in Kerosene Dispensing



No. 1140—110 Gal. Kerosene Tank Outfit—also furnished in 60 gal. capacity—No. 6040.

FRY-MARVEL PUMPS

No. 6540—65 Gal. Kerosene Tank Outfit—also obtainable in 120 gal. capacity—No. 1240.

If you are overlooking the profits possible in the kerosene end of your business, then you are overlooking one mighty lucrative source of revenue.

There is no better time than now to start, however, and when it comes to selection of dispensing equipment you will find that the Fry-Marvel line offers everything in the way of efficient equipment that can be produced.

Units here illustrated are designed specifically for the handling of kerosene and so have incorporated all the desirable and necessary features for dispensing this commodity.

Outfits are obtainable in four different gallonage capacities—in two round and two square units—thus enabling you to use your floor space to the best advantage.

Dust-proof, of heavy construction that will take the buffeting of every-day use, these tanks are fitted with bolted base pump, with quart and half-gallon quantity stops and shut-off nozzle. 11-inch fill opening with screen and hinged cover is also provided.

Write for further particulars and attractive prices on these units.

Marvel Equipment Company
Cleveland, Ohio

Marvel Equipment Company, Ltd.
Toronto, Canada

¶ THE SINCLAIR LAW OF LUBRICATION ¶ For every machine ¶ of every degree of wear ¶ there is a scientific Sinclair Oil ¶ to suit its speed and seal its power

SINCLAIR OILS
REG. U.S. PAT. OFF.

WAR on WASTE!

WITH the Law of Lubrication, Sinclair dealers make war on wasteful methods of lubrication which lessen the power and lower the value of automobile engines.

Introduce in your community this common-sense method of recommending the right grade of Sinclair Opaline Motor Oil—a simple and valued method which means more gallonage for you because it makes more satisfied car owners. *Why sell just "oil"?* Why not sell correct lubrication for economical transportation, scientifically based on the wear of the engine at its present mileage condition?

SINCLAIR REFINING COMPANY
45 Nassau Street, New York
Atlanta Detroit Kansas City Chicago Houston Omaha

[1916-26—*Ten years of manufacturing and distributing petroleum products of quality*]

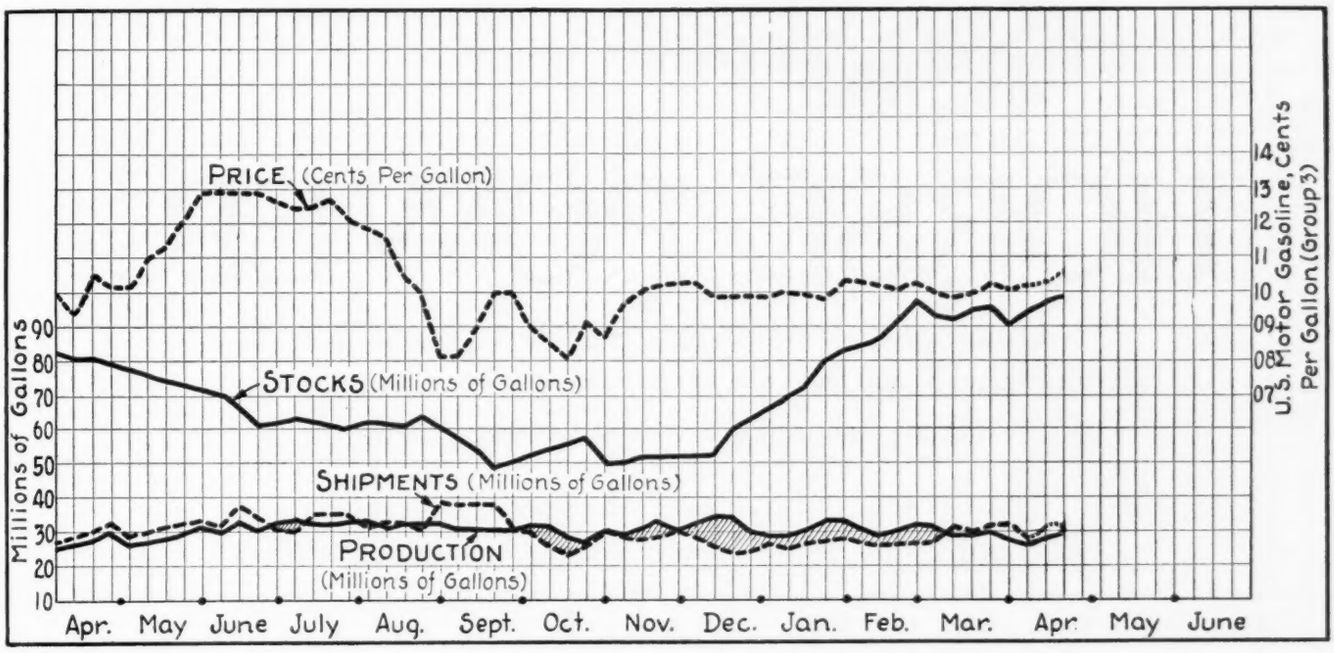
SINCLAIR
OPALINE
REG. U.S. PAT. OFF.
MOTOR OIL

ENTIRE CONTENTS COPYRIGHTED, 1926, BY SINCLAIR REFINING CO.

Refinery - Tank Wagon Markets

National Petroleum News

Barometer of the Mid-Continent Gasoline Market Week Ended April 23


PRICE (Cents Per Gallon)
STOCKS (Millions of Gallons)
SHIPMENTS (Millions of Gallons)
PRODUCTION (Millions of Gallons)
Millions of Gallons
U.S. Motor Gasoline, Cents Per Gallon (Group 3)
Apr. May June July Aug. Sept. Oct. Nov. Dec. Jan. Feb. Mar. Apr. May June

Entire Mid-Continent Market Is Stronger

Staff Special

TULSA, April 26

AN advance of ¼ cent in price of 58-60 U. S. Motor gasoline under the stimulus of increased buying, and the still higher price of kerosene following a second tankwagon advance the last eight days, were the high lights last week in a steadily strengthening Mid-Continent refinery market.

Every commodity now is steady to strong, and the market consequently is in the soundest position it has been in so far this year.

Naphthas and lower gravity gasolines are more in demand than they have been for some time past, and prices have moved up accordingly. Inquiries for these grades of gasoline for shipment over May also are increasing as jobbers prepare for the summer season when heavier gasoline will serve as well or better for motor fuel than the lighter gravity material.

The volume of inquiries on 58-60 U. S. Motor gasoline has been gratifying to refiners. Wires and letters have been coming in from all areas, asking for quotations over the remainder of this month and also May. Refiners have been reluctant to answer requests for May quotations, preferring to hold off to see what the last week of April has in store for them.

After letting U. S. Motor gasoline establish itself firmly at 10¼ cents early in the week, refiners began advancing Thursday with the result that by Saturday they had established a good 10½ cent market. With a few more days of fair weather, they say, prices are destined to move up again.

Look for Tankwagon Advance

IF refiners are successful in their effort to establish a 10½ to 10¾ cent market the first week in May, they believe a revision upward in tank wagon prices will be forthcoming.

Only one gasoline tank wagon price advance has been made in Standard Oil Co. of Indiana so far this year. That advance was on Feb. 4 after Mid-Continent crude oil prices had been raised. Last year three advances for a total of 5 cents were made in gasoline tank wagon prices in Indiana territory between Jan. 22 and Feb. 13. When the first advance was made last year U. S. Motor gasoline was around 8 cents a gallon in Group 3. The price moved up until it was 13½ cents after the Feb. 13 change of 2 cents.

Gasoline tank wagon prices this year throughout Standard of Indiana territory are generally 3 cents higher than in January, 1925. U. S. Motor gasoline has been hovering around the 10-cent mark all this year, approximately 2 cents above the price last year when the first advance of 1 cent was made. If the market gets to 3 cents above the January, 1925 prices, refiners point out, the difference in last year and this year's tank wagon prices will be absorbed, and a change will be necessary or the margin will be so close many jobbers will be pinched.

Approximately 1,500,000 gallons of export grade gasoline was bought last week in Texas and Oklahoma. Exporters are reported to be persistently inquiring for goods. Refiners are asking 12¼ cents per gallon, however, while the exporters so far have been reluctant to go over 12⅛ cents. As soon as they get together in the price, the prediction is that considerable buying will be done.

The New Orleans Refining Co. continues to enter the field periodically for 60-62, 400 end point gasoline for export, giving that commodity no opportunity to ease off.

(Continued on page 117)

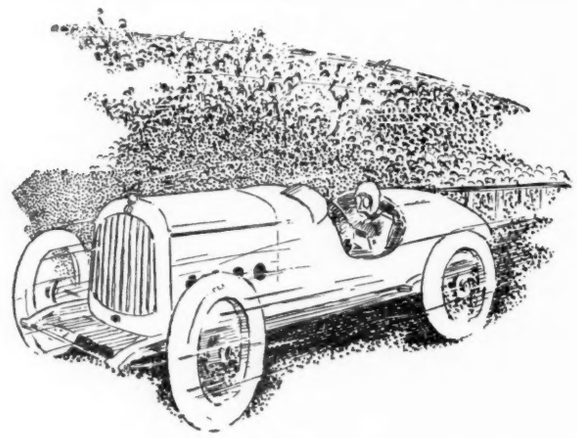
Marker Section

HORSE POWER

From the days when Ben Hur drove his four milk-white Arabians to a glorious victory, the advancement of civilization has depended upon horse power.

Then it was the question of super breeds of equine flesh, but today horse power means something different - it means modern gasoline motors, developed to the highest mechanical perfection.

These modern motors demand good gasoline. The best gasoline contains a large percentage of "Natural Gasoline", which gives it greater power and efficiency.



CHESTNUT & SMITH CORPORATION

GENERAL OFFICES CHESTNUT & SMITH BLDG.
TULSA, OKLAHOMA.

Refinery Markets on Light Oils and Lubricants

Pennsylvania, Oklahoma, North and South Texas, Louisiana, Arkansas, California

GASOLINE AND NAPHTHA

PENNSYLVANIA	Prices April 26	Prices April 19	Prices April 12
52-54 Naphtha	12 -12¼	12 -12¼	11½-11¾
54-56 Naphtha	12½-13	12¼-12½	11¾-12¼
58-60 Gasoline	-13	12¾-13	12½-12¾
60-62 Straight-run gasoline	13¾-14	-13½	13 -13½
64-66 Straight-run gasoline	14¾-15	14½-15	14 -14½
68-70 Straight-run gas. 350-360 E.P.	15¼-15¾	15½-16	15½-16
68-70 Straight-run gas. 305-320 E.P.	-20	-20	19 -20
OKLAHOMA			
48-50 450 E. P. naphtha	- 9½	- 9¼	9 - 9¼
50-52 450 E. P. naphtha	9½- 9¾	9¼- 9½	9 - 9¼
56-58 450 E. P. gasoline	10 -10¼	- 9¾	9¾- 9¾
56-58 U. S. Motor gasoline	10¼-10¾	-10	9¾- 9¾
58-60 450 E. P. gasoline	10 -10¼	-10	.....
58-60 U. S. Motor 437 E. P.	-10½	-10¼	10 -10¼
60-62 400 E. P. gasoline	-11½	11¼-11¼	11 -11¼
64-66 390 E. P. gasoline	-12	11¾-11¾	11½-11¾
64-66 375 E. P. gasoline	12¼-12¾	-12¼	12 -12¼
68-70 350-360 E. P. gasoline	12¾-13	12¾-13	12¾-13
64-66 437 E. P. blend	9⅞-10⅛	9¾- 9⅞	9¾- 9⅞
KANSAS*			
58-60 U. S. Motor gasoline	-10¾	-10½	10¼-10½
60-62 400 E. P. gasoline	11½-11¾	11¾-11½	11¾-11½
64-66 375 E. P. gasoline	12½-12¾	12½-12¾	12½-12¾
*F. O. B. refinery Kansas destination.			
NORTH TEXAS			
48-50 450 E. P. naphtha	- 9¼	- 9¼	9 - 9¼
56-58 450 E. P. gasoline	9¾-10	9¼- 9¾	9¼- 9¾
58-60 450 E. P. gasoline	10 -10¼	9¾-10	9¾- 9¾
56-58 U. S. Motor gasoline	10 -10¼	9¾-10	9¾- 9¾
58-60 U. S. Motor gasoline	10¼-10¾	10 -10¼	-10
64-66 390 E. P. gasoline	12 -12¼	11¾-12	11¾-12
64-66 375 E. P. gasoline	12¼-12¾	12¼-12¾	12¼-12¾
68-70 350-360 E. P. gasoline	-12¾	-12¾	-12¾
NORTH LOUISIANA			
58-60 U. S. Motor 437 E. P.	10½-10¾	10¼-10½	-10¼
ARKANSAS			
58-60 450 E. P. gasoline	-10½	-10¼	-10
58-60 U. S. Motor gasoline	10¾-11	-10½	-10¼
64-66 375 E. P. gasoline	-12¾	12¼-12½	12¼-12½
CALIFORNIA			
54-56 U. S. Motor gasoline	12½-13	12½-13	12½-13
42-45 Engine distillate 445-480 E.P.	10 -10½	10½-11	10½-11

Note: This is without the 2-cent state tax included in the price of California refiners for shipments within the state.

NEW ENGLAND (F. O. B. Boston and Fall River)			
U. S. Motor gasoline	-13½	-13½	-13¼

NATURAL GASOLINE

(Note: End point of all grades, not over 375° F.)

OKLAHOMA			
Grade Double A	9 - 9¼	- 9	8¾- 9
Grade A	9 - 9¼	- 9	8⅞- 9
Grade Double B	- 8¼	- 8	- 8
Grade B	- 8¼	- 8	- 8
Grade C	8 - 8¼	7¾- 8	7¾- 7⅞

NOTE—Specifications adopted by Ass'n. of Nat. Gaso. Manufacturers
Grade Double A—80-87.9 gravity, 90% recovery, not over 375 E. P.
Grade A—72-79.9 gravity, 90% recovery, not over 375 E. P.
Grade Double B—84-92 gravity, 85% recovery, not over 375 E. P.
Grade B—76-83.9 gravity, 85% recovery, not over 375 E. P.
Grade C—80-90 gravity, 78% recovery, not over 375 E. P.

NORTH LOUISIANA			
*Grade Double A	9½- 9¾	9½- 9¾	9½- 9¾
*Grade Double B	8⅝- 8¾	8¾- 9	8¾- 9
*Grade C	- 8¾	8½- 8¾	- 8¾
*F. O. B. Monroe District.			
NORTH TEXAS			
*Grade Double A	- 9	- 9	- 9
*Grade A	- 9	- 9	- 9
*Grade Double B	- 8¼	8 - 8¼	8 - 8¼
*Grade B	- 8¼	8 - 8¼	8 - 8¼
*Grade C	8¼- 8¼	7¾- 8	7¾- 8
*F. O. B. Breckenridge.			
CALIFORNIA			
78-84° 375 E. P.	16 -16½	17 -17½	17 -17½
PENNSYLVANIA			
68-70 Grav. 437 E. P.	12½-13	12¾-13	12¾-13¼
64-66 Grav. 437 E. P.	12½-13	12¾-13	12¾-13¼
60-62 Grav. 437 E. P.	12½-13	12¾-13	12¾-13¼
68-70 Grav. 420 E. P.	13¼-13¾	13½-14	13½-14

BURNING OILS

PENNSYLVANIA			
45 Water White Kerosene	- 9½	- 9	- 9
46 Water White Kerosene	- 9¾	- 9½	9¼- 9½
47 Water White Kerosene	10 -10¼	9¾-10	9¾-10
300 Burning Oil	8 - 8½	8 - 8½	8 - 8½
OKLAHOMA			
41-43 Water White Kerosene	- 8	7¼- 7¾	6¾- 6¾
42-44 Water White Kerosene	8¼- 8½	- 7¾	7¼- 7¼
KANSAS			
41-43 w. w. kerosene	8½- 8¾	7¾- 8¼	- 7½
42-44 w. w. kerosene	- 9	- 8½	- 7¾

NORTH TEXAS	Prices April 26	Prices April 19	Prices April 12
41-43 Water White Kerosene	7¾- 8	7 - 7¾	7 - 7⅛
NORTH LOUISIANA			
41-43 Water White Kerosene	7¾- 8¼	7 - 7¼	7 - 7¼
ARKANSAS			
41-43 Water White Kerosene	- 8½	- 7½	- 7¼
CALIFORNIA			
38-40 Water White Kerosene	8 - 8½	8 - 8½	8 - 9
NEW ENGLAND			
*40-43 Water White Kerosene	-9½	.....	- 9½

NEUTRAL OIL

PENNSYLVANIA (Viscosity at 70° F.)			
200 Vis. No. 3 Assoc. Filt.	27½-28	27½-28	27½-28
180 Vis. No. 3 Assoc. Filt.	-25½	25½-26	25½-26
150 Vis. No. 3 Assoc. Filt.	21½-22	21½-22	21½-22
(Non-Viscous)			
34 Grav. 350-360 Flash	8 - 8½	8 - 8½	8 - 8½
36 Miners Neutrals 300-305 Flash	7¼- 7¾	7¼- 7¾	7¼- 7¾
OKLAHOMA (Viscosity at 100° F.)			
100 Vis. No. 2 color	6½- 7½	6½- 7½	6½- 7½
150 Vis. No. 3 color	9½-11	9½-11	9½-11
150 Vis. No. 4 color	9½- 9¾	9½- 9¾	9½- 9¾
180 Vis. No. 3 color	10¼-10½	10¼-10½	10¼-10½
180 Vis. No. 4 color	10 -10½	10 -10½	10 -10½
180 Vis. No. 5 color	-10¼	-10¼	-10¼
200 Vis. No. 3 color	-11½	-11½	-11½
200 Vis. No. 4 color	11¼-11½	11¼-11½	11¼-11½
200 Vis. No. 5 color	9½-11¼	9½-11¼	9½-11¼
220 Vis. No. 3 color	12 -13	12 -13	12 -13
220 Vis. No. 4 color	13 -13½	13 -13½	13 -13½
220 Vis. No. 5 color	-12¾	-12¾	-12¾
240 Vis. No. 3 color	14 -16	14 -16	14 -16
240 Vis. No. 4 color	14¼-14½	14¼-14½	14¼-14½
240 Vis. No. 5 color	-14	-14	-14
280 Vis. No. 3 color	16 -17	16 -17	16 -17
280 Vis. No. 4 color	16¼-16½	16¼-16½	16¼-16½
280 Vis. No. 5 color	15¾-16	15¾-16	15¾-16
300 Vis. No. 5-6 color	17 -18½	17 -18½	17 -18½
GULF COASTAL (Viscosity at 100° F; cold test 0)			
100 Vis. No. 2 Color Unfilt. Pale	7½- 8	7½- 8	7½- 8
200 Vis. No. 3 Color Unfilt. Pale	11½-12	11½-12	11½-12
300 Vis. No. 3 Color Unfilt. Pale	13 -13½	13 -13½	13 -13½
500 Vis. No. 3½ Color Unfilt. Pale	15 -15½	15 -15½	15 -15½
750 Vis. No. 4 Color Unfilt. Pale	18½-19½	18½-19½	18½-19½
200 Vis. No. 5½ Color Red Oil	9½-10	9½-10	9½-10
300 Vis. No. 5½ Color Red Oil	11½-12	11½-12	11½-12
500 Vis. No. 6 Color Red Oil	13 -13½	13 -13½	13 -13½
750 Vis. No. 6 Color Red Oil	17 -18	17 -18	17 -18
CALIFORNIA (Viscosity at 100° F.)			
100 Vis. No. 2 color	11 -11½	11 -11½	11 -11½
100 Vis. No. 3 color	8½- 9	8½- 9	8½- 9
200 Vis. No. 3 color	13½-14	13½-14	13½-14
300 Vis. No. 3 color	15 -15½	15 -15½	15 -15½
450 Vis. No. 3½ color	18 -18½	18 -18½	18 -18½
550 Vis. No. 3 color	20 -21	20 -21	20 -21
600 Vis. No. 3½ color	21 -22	21 -22	21 -22
100 Vis. No. 5 color	7 - 7½	7 - 7½	7 - 7½
200 Vis. No. 5 color	12 -12½	12 -12½	12 -12½
300 Vis. No. 5 color	13 -13½	13 -13½	13 -13½
400 Vis. No. 5 color	15 -16	15 -16	15 -16
500 Vis. No. 5 color	16 -17	16 -17	16 -17
600 Vis. No. 6 color	17 -18	17 -18	17 -18
700 Vis. No. 7 color	18 -19	18 -19	18 -19

CYLINDER STOCKS

OKLAHOMA			
190-200 Vis. at 210° Bright Stock	31 -35	31 -35	31 -35
150-160 Vis. at 210° Bright Stock	27 -31	27 -31	27 -31
600 E Stock. 140-150 Vis. — 210°	18 -20	18 -20	18 -20
600 Steam Refined Olive Green	8½-11	8½-11	8½-11
600 Steam Refined Dark Green	6½- 7	6½- 7	6½- 7
Black Oil	5 - 6	5 - 6	- 5
PENNSYLVANIA (1-inch Immersion Test)			
600 Steam Refined	14¾-16	15¾-16½	15½-16½
650 Steam Refined	21 -21½	21 -21½	21 -22
600 Flash	24 -25	25½-26	25 -26
625 Flash Steam Refined	-34	34½-35	-34
600 Warren E	21 -21½	21 -21½	21 -21½
600 Oil City E	20 -20½	20 -20½	20 -20½
600 Filtered D	25 -26	26 -27	26 -27
Cold Test Stocks (bright filtered)	38½-39	38 -39	37 -38
Cold Test Stock (dark filtered)	36 -37	36 -37	35 -36

(Note—Prices of total immersion test goods average 1 to 3 cents per gallon higher.)

Above prices are f. o. b. refinery in tank car. They are the prices at which the bulk of the products on the open market move. Whoever has knowledge of any open market prices on any considerable quantity of goods differing from the foregoing, will favor us with this information.

*Only one refiner quoting.

THE HACKNEY DRUM has the same type raised openings that protect the Seamless Barrel against water and dirt getting in the barrel contents. In addition the Hackney Drum has integral hoops and the chimes are brazed over an area that is eight times that of the ordinary weld. That's real drum strength.

THE HACKNEY TWO-PIECE BARREL has but one seam and that is circumferential at a point above the rolling surface. The chimes and heads are pressed integrally with the barrel body. That's the kind of construction that defeats nose dives and assures long and continuous service.

THE HACKNEY TWO-PIECE DRUM is made from two solid pieces of sheet steel. The only seam is circumferential. The chimes and heads are integral with the body. Two I-Bar hoops provide additional rigidity and strength and make rolling easy.

THE HACKNEY SEAMLESS BARREL is the ideal container for continuous service. The body is pressed from a solid sheet of steel. Absolutely no chance for leakage there. And the absence of seams means extraordinary long service.

Water Can't Sneak In

See the two little dry islands on the head of this Hackney Seamless Barrel. They are the patented Hackney raised openings.

Water and dirt can't sneak into them even with the plugs removed as they are here.

Coupled with this feature is solid, rigid barrel strength. The entire body is pressed from a single sheet of steel. The head chime is brazed over an area that is eight times that of the ordinary weld.

Result--many, many trips in spite of abuse. And water and dirt cannot get in to spoil the contents. Sizes 55 and 33 gallon.

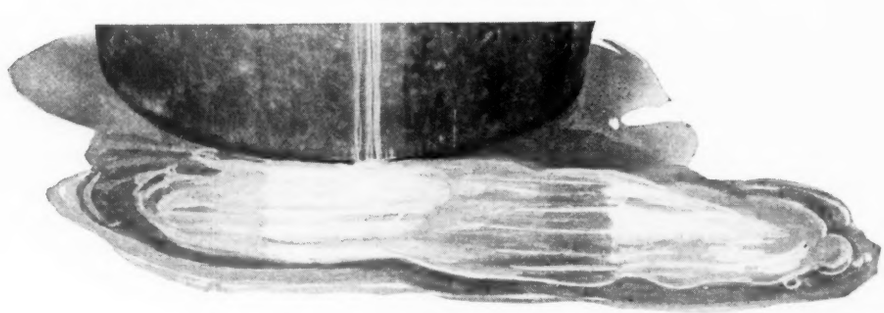
For detailed information and quotations on this, or other Hackney products drop a letter to--

The PRESSED STEEL TANK COMPANY—Milwaukee, Wis.

1141 Continental Bank Bldg. Chicago, Ill.

1317 Vanderbilt Concourse Bldg. New York City

5719 Greenfield Ave., Milwaukee, Wis.



Refinery Markets on Wax and Heavy Oil Products

Pennsylvania, Oklahoma, North and South Texas, Louisiana, Arkansas, California

WAX

PENNSYLVANIA	Prices April 26	Prices April 19	Prices April 12
	(Per Pound, New York)		
122-124 White Crude Scale..	– 5¼	– 5¼	– 5¼
124-126 White Crude Scale..	– 5⅜	– 5⅜	– 5⅜
OKLAHOMA			
	(Per Pound, Group 3)		
124-126 White Crude Scale..	– 5	– 5	4⅞– 5
CALIFORNIA			
White Crude Scale.....	5¾– 6	5¾– 6	6 – 6½

FUEL OIL

PENNSYLVANIA			
36-40 Fuel Oil.....	6¾– 7	– 6½	6¾– 6½
30-34 Fuel Oil.....	6 – 6½	6 – 6¼	5¾– 6
28-30 Fuel Oil.....	6 – 6¼	6 – 6⅛	5¾– 6
OKLAHOMA			
38-40 Straw distillate.....	4⅝– 4⅞	4½– 4⅝	4½– 4⅝
36-38 Straw distillate.....	4⅜– 4½	4¼– 4⅜	4¼– 4⅜
32-36 Gas oil (Gal.).....	4⅛– 4¼	4⅛– 4¼	4¼– 4⅜
26-30 Fuel oil (Bbl.).....1.50	–1.55	1.50 –1.60	1.50 –1.60
24-26 Fuel Oil (Bbl.).....1.37½	–1.42½	1.40 –1.45	1.40 –1.45
22-26 Fuel Oil (Bbl.).....1.30	–1.35	1.32½–1.35	1.32½–1.37½
18-22 Fuel Oil (Bbl.).....	–1.30	–1.30	–1.30
KANSAS*			
38-40 Light straw distillate..	4¾– 5	– 5	4¾– 5
36-38 Light straw distillate..	4½– 4¾	4½– 4¾	4½– 4¾
32-36 Gas Oil.....	4⅜– 4½	4½– 4⅝	4½– 4⅝
18-22 Fuel Oil.....1.35	–1.40	1.35 –1.40	1.35 –1.40
24-26 Fuel Oil.....1.45	–1.50	1.45 –1.55	1.45 –1.55
*F. O. B. refinery, Kansas destination.			
NORTH TEXAS			
38-40 Straw Distillate.....	– 4½	– 4½	– 4½
32-36 Gas Oil (Gal.).....	4 – 4¼	4⅜– 4¾	4 – 4¼
24-26 Fuel per (Bbl.).....	1.40-1.45	1.45 –1.50	1.47½–1.50

GULF COASTAL	Prices April 26	Prices April 19	Prices April 12
Fuel.....1.55	–1.65	1.55 –1.65	1.55 –1.65
Gas Oil.....	– 5¾	– 5¾	– 5¾
NORTH LOUISIANA			
32-36 Light Gas Oil (Gal.)...	4¼– 4½	4¼– 4½	4¼– 4½
16-20 Fuel Oil (Bbl.).....	–1.20	–1.20	1.15 –1.20
ARKANSAS			
32-36 Gas Oil.....	– 4½	4¼– 4½	– 4½
Smackover Crude Fuel.....1.10	–1.12½	1.07½–1.12½	1.07½–1.12½
Road oil.....	–1.26	–1.26	–1.26
CALIFORNIA*			
14-18 Fuel Oil (Bbl.).....	1.00	1.00	1.00
14-18 Bunker Oil (Bbl.).....	1.00	1.00	1.00
24-30 Gas Oil (Bbl.).....	1.15	1.15	1.15
27 + Diesel Oil (Bbl.).....	1.15	1.15	1.15
*(San Joaquin Valley, San Francisco 4c per bbl. more.)			
NEW ENGLAND			
	(F. O. B. Boston and Fall River)		
30-32 Gas Oil (Gal.).....	– 5¾	– 5½	– 5¾
Fuel Oil (Bunker C) Bbl....	–1.82½	–1.80	–1.80½

PETROLATUMS

PENNSYLVANIA			
Snow White.....	–11	–11	–11⅛
Lily White.....	– 9½	– 9½	– 9½
Cream White.....	– 6¾	– 6¾	– 6¾
Light Amber.....	– 3⅞	– 3⅞	– 3⅞
Amber.....	– 3½	– 3½	– 3½
Red.....	– 3¼	– 3¼	3 – 3½
Green.....	1¾– 2	1¾– 2	1¾– 2

Above prices are f. o. b. refinery in tank car. They are the prices at which the bulk of the products on the open market move. Whoever has knowledge of any open market prices on any considerable quantity of goods differing from the foregoing, will favor us with this information.

(Continued from page 113)

SHIPMENTS of natural gasolines to California from the Mid-Continent are increasing rapidly. This spring is the first since 1921 that naturals have moved by rail to the west coast.

One company which tried shipping to California on a small scale two months ago has found it to be successful enough to cause them to ship at least one trainload of naturals, in addition to several additional cars a month. They have already shipped approximately 100 cars westward this month. Mileage on the tank cars, it is reported, is bringing a good return, and with some purchasers allowing as much as 5 inches outage, the salesmanager of this company declares he'd rather ship to California than any other place.

Another large company started a trainload of naturals to California today, expecting it to reach its destination in approximately four days. This company is sending the train primarily as an experiment, making up the shipment from its own production, and buying in the open market for the requirements at its own refineries.

This move, coupled with considerable buying which has been done for over May, is considered a wise one by many. Around April 13 last year Grades A and AA were 9 cents, Grades B and BB 8 cents, and Grade C 7 cents. The market then started upward and by June 1, all grades had one price—14½ cents. They moved upward together, then came back together, until finally in October Grade C broke away.

Many say the same thing will occur this year, that the bad weather has caused the present delay, just as it has caused a delay in the upward movement of straight run gasoline prices. The rise in naturals prices is not expected to be so rapid this year, because one of the larger natural gasoline manufacturers, which was also buying heavily last year, will not be a similar factor this year.

On the other hand the New Orleans Refining Co. contracts are taking out a large quantity of material each month, and the shipments to California are increasing. Whereas holders of contracts last year depended to some extent on their ability to buy on the open market, those holding the New Orleans contracts are well protected at their sources of supply this year, which will make it unnecessary to fight in the open market for any quantities of material. Other purchasers not protected this way, however, may have to keep on their toes for whatever loose naturals that are offered, and this buying is expected to be the major booster of prices.

Kerosene Strong and Scarce

FINDING kerosene is becoming a tedious task in the Mid-Continent. Many refiners are not quoting, some declaring that they are far oversold. One large company is said to be 60 cars oversold, another 50, a third 30, others from 20 to 10 cars.

Marketers have been seeking the oil everywhere with only meager success, and jobbers have been firing inquiries almost at random in the hope of stumbling on a stray car or two.

The present situation apparently is one of "supply and demand." Refiners, with their more efficient refining methods, have gradually gotten away from quantity kerosene production. With prices far under gasoline, they found it more profitable to go deeper into their normal kerosene "cuts" for gasoline gallonage.

Kerosene consequently has become gradually scarcer, while the increased demand for the oil for stationary and tractor engine use has gradually increased the seasonal demands.

The supply is certain to increase, however, when the demand gets to the point where refiners can make more money on kerosene than they can by running a part of it into gasoline. Some refiners have figured that point is at 8 cents and above per gallon for 41-43 water white grade. That point has been reached.

The advance of ½ cent in tank wagon price of kerosene by the Standard of Indiana Saturday put the market up to 8 cents in Group 3, and the other areas have moved up accordingly. Many refiners had sold heavily before April 16 at 6¾ cents per gallon. The 1 cent advance of that date sent the market up ½ cent, and by the middle of last week complaints were heard of inability to get shipment on material purchased. The price moved to 7½ cents Friday with little kerosene available. The second advance added the final push necessary for an 8-cent market.

Market Section

Kerosene is High and Scarce Product In Chicago Market

CHICAGO, April 24

UNUSUAL strength in kerosene featured the Chicago market this week. Steady jobbing demand for the spring tractor trade has rapidly pushed prices way beyond the high point for many years past. By April 22 refiners had absorbed the 1 cent advance made in tank wagon price by Standard Oil Co. of Indiana April 16 and on April 23, the latter announced an additional ½ cent advance to take effect the following day.

The unusual strength does not rest in the demand for kerosene as much as in the fact that material in the field for shipment is none too plentiful. Refiners have not increased their cuts on this class of goods, and several have booked orders so far ahead they are beginning to search the field for any stray stuff on which they might speculate. Pennsylvania kerosene, prices for which are not as far above the Group 3 level as usual, is now figuring to a greater extent in Michigan and Ohio business. But in Pennsylvania, as in Oklahoma, scarcity is an important fact.

41-43 Is Over 8 Cents

TODAY, 41-43 water white kerosene is firmly held at 8 to 8⅛ cents and at least one large refiner in Chicago is quoting 8¼ cents. Monday of this week saw prices on this grade of 7⅜ to 7½ cents. The 42-44 water white kerosene is virtually out of the local market. Only one refiner is making this cut and his offerings are small; his price to the trade is 8½ cents.

Gasoline has held a firm to strong position all week. Consumption has shown a gradual increase and prices at the close of the week are a shade higher than on Monday. U. S. Motor gasoline is strong at 10⅜ to 10½ cents. The majority of dealers are asking the latter price, but one or two are moving stuff at 10⅜ cents and occasional cars are going at 10¼ cents. The 58-60, 450 end point material is more in demand and prices have advanced along with Motor gasoline. Some of this grade is available at as low as a dime but most dealers are holding for 10⅛ and 10¼ cents.

Weather conditions up until the end of the week have been most favorable for motoring and continued fair weather is predicted for most of the coming week. Monday and Tuesday will be generally fair. A short period of showers will follow on either Wednesday or Thursday and thereafter mostly fair weather will again prevail.

Aside from an exceptional firmness in price, which is unusual for the season, the heavier oils have been featureless. Distillate demand has eased off considerably but prices have held. Saturday a flat price of 4½ cents ruled for 38-40 straw color material. Gas oil, 32-36 gravity, is fairly active; cracked material is available at 4⅛ cents, while straight-run goods are bringing from 4¼ to 4⅜ cents.

The anticipated slump in fuel oil prices has not materialized. The 18-22 gravity fuel is firm at $1.30; 22-26 can be had for the same price but enough material is moving at $1.35 to be representative of the market. Higher gravity fuels are strong with 24-26, $1.40 to $1.45 and 26-30, $1.50 to $1.60. Smackover crude fuel is steady at $1.07½ to $1.10.

Tank Wagon Price Boost In Middle West

CHICAGO, April 24.—Effective Saturday, April 24, the Standard Oil Co. of Indiana announced an advance in the tank wagon price of kerosene of ½ cent throughout its territory. Advances of less than 1 cent at a time in the price of either kerosene or gasoline are quite uncommon in this territory, although not so unusual in eastern states.

On April 23, Standard announced also an advance in the tank wagon price of gasoline in South Dakota. In that state the advance was a restoration of actual prices to the normal price schedule. For several months gasoline prices have been considerably below normal in that state. They have not been actually coincident with the normal schedule for several years, since the state government entered the gasoline business under the administration of W. H. McMaster, then governor and now United States senator.

Considering both the changes, the gasoline price at Sioux Falls, the biggest town in the state, is 21½ cents tank wagon and 23½ cents service station, and kerosene is 15.1 cents. In Huron and Pierre the prices are alike. They are 22 cents tank wagon and 24 cents service station on gasoline and 15.6 cents on kerosene.

Since the gasoline price war began at Bartlesville, Okla. early in February, prices shown in the tank wagon tables in National Petroleum News have been incorrect. Gasoline prices at Bartlesville were restored to normal on Apr. 6 by an advance of 1.9 cents to 19.3 cents tank wagon, and 21.3 cents service station. On Apr. 8, coincident with the reduction in Kansas, prices were cut ½ cent at Bartlesville to 18.8 cents tank wagon, and 20.8 cents service station.

The price of kerosene was restored to normal on Apr. 8 by an advance of 0.9 cents to 11.8 cents, and coincident with the general 1 cent advance on Apr. 16, price at Bartlesville became 12.8 cents. Correct prices, which include the ½ cent kerosene advance on Apr. 24 are shown in the tank wagon table in this issue.

PLATT'S
OILGRAM
Petroleum Markets-Every Day

A SALES-MANAGER'S COSTLY ERROR!

THE sales-manager of a refinery in Oklahoma—who is a regular subscriber to the OILGRAM — neglected to tell us that he wanted immediate wires on crude and tankwagon price-changes.

One bright morning crude advanced unexpectedly and before his office learned of the advance, they had sold 20 cars of gasoline at least one-eighth cent under the market.

The sales-manager frankly admitted he had only himself to blame for not notifying the OILGRAM that he wanted wire service on crude and tankwagon changes, in addition to the daily market bulletin from Tulsa. Nevertheless, this negligence cost his company a tidy little sum.

PLATT'S OILGRAM service by wire and daily bulletin is your greatest aid to showing a PROFIT for 1926.

Three months service for $25, or a whole year for $75. Send for your service to the nearest mailing point.

TULSA—608 Bank of Commerce Bldg.
CHICAGO—360 N. Michigan Ave.
CLEVELAND—842 Caxton Bldg.

Week's Price Changes Tank Wagon Market

Gasoline Changes

Standard of Kentucky—T.w. price gasoline to dealers at Pensacola cut 2 cents, s.s. price cut 3 cents, to 19 cents and 21 cents respectively, including 4 cent state tax, **April 15.**

Standard of Indiana—See story elsewhere in market section for gasoline changes.

Magnolia Petroleum—T.w. and s.s. prices gasoline advanced 1 cent, Tulsa, to 18 cents and 21 cents respectively, meeting Independent oil companies, **April 16.**

Kerosene Changes

Standard of New Jersey—T.w. price kerosene cut 1 cent, Washington, D. C. only, to 14 cents, **April 20.**

Standard of Nebraska—T.w. and s.s. prices kerosene advanced ½ cent, through Nebraska, April 25. Last previous change was 1 cent advance on **April 16.**

Continental Oil—T.w. price kerosene advanced 1 cent, Montana, generally, ½ cent generally in Utah, and ½ cent at Boise, Ida., **April 20.**

Standard of Indiana—See story elsewhere in market section for kerosene changes.

Tank Wagon, Service Station Markets for Gasoline and Kerosene In United States Territories and Canada

These Prices in Effect April 26, 1926

S.O. NEW JERSEY TERRITORY

	Gasoline T.W.	Tax	Total T. W.	S.S.	Oil T.W.
Atlantic City, N. J.	17	0	17	*	15
Newark, N. J.	17	0	17	19	15
Annapolis, Md.	17	2	19	*	15
Baltimore, Md.	17	2	19	22	15
Cumberland, Md.	17	2	19	22	15
Washington, D. C.	17	2	19	22	14
Danville, Va.	17	4½	21.5	*	15
Norfolk, Va.	17	4½	21.5	24.5	15
Richmond, Va.	17	4½	21.5	24.5	15
Roanoke, Va.	17	4½	21.5	24.5	15
Petersburg, Va.	17	4½	21.5	*	15
Williamsburg, Va.	17	4½	21.5	*	15
Charleston, W. Va.	16.5	3½	20	23	15
Clarksburg, W. Va.	17	3½	20.5	23.5	15
Keyser, W. Va.	17	3½	20.5	*	15
Parkersburg, W. Va.	16.5	3½	20	23	15
Wheeling, W. Va.	16.5	3½	20	23	15
Charlotte, N. C.	17	4	21	24	15
Hickory, N. C.	17	4	21	*	15
High Point, N. C.	17	4	21	*	15
Mt. Airy, N. C.	17	4	21	*	15
Salisbury, N. C.	17	4	21	*	15
Charleston, S. C.	17	5	22	25	15
Columbia, S. C.	17	5	22	25	15

*Dealers set own prices. S. O. New Jersey does not operate station

S. O. NEW YORK

*New York City	19	0	19	23	16
Albany, N. Y.	19	0	19	21	16
Buffalo N. Y.	18	0	18	21	16
Rochester, N. Y.	19	0	19	23	14
Syracuse, N. Y.	19	0	19	21	15
Boston, Mass.	19	0	19	22	16
Augusta, Me.	19	3	22	25	16
Manchester, N. H.	19	2	21	25	16
Burlington, Vt.	19	2	21	23	16

*In steel barrels.

ATLANTIC REFINING

Pittsburgh, Pa.	18	0	18	*23	16
Philadelphia, Pa.	18	0	18	*23	16
Allentown, Pa.	18	0	18	*23	16
Erie, Pa.	16	0	16	*21	14
Scranton, Pa.	18	0	18	*23	16
Altoona, Pa.	18	0	18	*23	16
Dover, Del.	18	2	20	23	16
Wilmington, Del.	18	2	20	23	16
Providence, R. I.	19	1	20	23	16
Springfield, Mass.	19	0	19	22	16
Worcester, Mass.	19	0	19	22	16
Hartford, Conn.	19	2	21	24	15
New Haven, Conn.	19	2	21	24	16
Boston, Mass.	19	0	19	22	16

*Contains 2-cent tax collected by retail dealer and paid by him directly to state.

S. O. KENTUCKY

Lexington, Ky.	17	5	22	25	16
Louisville, Ky.	18	5	23	26	15
Covington, Ky.	17	5	22	25	16
Clarksdale, Miss.	17	4	21	24	14.5
Jackson, Miss.	17	4	21	24	13.5
Natchez, Miss.	16.5	4	20.5	23.5	14
Vicksburg, Miss.	16.5	4	20.5	23.5	14
Birmingham, Ala.	18	2	20	23	16.5
Mobile, Ala.	17	2	19	22	15
Montgomery, Ala*	19	2	21	24	17.5
Atlanta, Ga.	†19	3½	23	26	17
Augusta, Ga.	†19	3½	23	26	17
Macon, Ga.	†19	3½	23	26	17
Savannah, Ga.	†16	3½	20	23	15
Jacksonville, Fla.	17	4	21	24	15
Miami, Fla.	19	4	23	26	16.5
Tampa, Fla.	17	4	21	24	15
Pensacola, Fla.	15	4	19	21	15.5

*Local privilege tax of 1 cent on gasoline and ½ cent on kerosene at Montgomery included.

†Georgia has ½ cent per gal. inspection fee on gasoline which is deducted as well as the state gasoline road tax of 3½ cents, to get the actual net tank wagon market to dealer.

S. O. INDIANA

	Gasoline T.W.	Tax	Total T. W.	S.S.	Oil T.W.
Chicago, Ill.	†17	0	†17	19	13.5
Decatur, Ill.	17.2	0	17.2	19.2	14
E. St. Louis, Ill.	16.1	0	16.1	18.35	13.1
Joliet, Ill.	17.4	0	17.4	19.4	14.2
Peoria, Ill.	17.2	0	17.2	19.2	14
Quincy, Ill.	17.2	0	17.2	19.2	13.8
Indianapolis, Ind.	17.2	3	20.2	22.2	14.2
Evansville, Ind.	17	3	20	22	14
South Bend, Ind.	17.4	3	20.4	22.4	14.4
Detroit, Mich.	17.8	2	19.8	21.8	14.7
Grand Rapids, Mich.	17.7	2	19.7	21.7	14.6
Saginaw, Mich.	17.9	2	19.9	21.9	14.8
Madison, Wis.	17.3	2	19.3	21.3	14
Milwaukee, Wis.	17.1	2	19.1	21.1	13.8
La Crosse, Wis.	18.2	2	20.2	22.2	14.9
Minneapolis, Minn.	18.2	2	20.2	22.2	15.1
Duluth, Minn.	18.5	2	20.5	22.5	15.1
Mankato, Minn.	18.1	2	20.1	22.1	14.9
De Moines, Iowa	17.5	2	19.5	21.5	14.4
Davenport, Iowa	17.5	2	19.5	21.5	14.4
Sioux City, Iowa	17	2	19	21	14
Mason City, Ia.	17.5	2	19.5	21.5	14.4
St. Louis, Mo.	*16.6	2	18.6	20.9	13.5
Kansas City, Mo.	††17.9	2	19.9	21.9	12.8
St. Joseph, Mo.	*17	2	19	21	13.4
Fargo, N. D.	19.9	1	20.9	22.9	17.1
Grand Forks, N. D.	20.2	1	21.2	23.2	17.4
Minot, N. D.	19.9	1	20.9	22.9	17.1
Pierre, S. D.	19	3	22	24	15.6
Huron, S. D.	19	3	22	24	15.6
Wichita, Kans.	15.8	2	17.8	19.8	13.3
Bartlesville, Okla.	15.8	3	18.8	20.8	13.3

†Dumps of 100 or more gallons at 16c per gallon.
*Includes city tax of ½c.
††Includes city tax of 1c.

S. O. NEBRASKA

Crawford, Neb.	18	2	20	*	14.75
Omaha, Neb.	16.25	2	18.25	20.25	14
McCook	18.75	2	20.75	22.75	15.5
Norfolk	17.75	2	19.75	21.75	14.5
North Platte	18.75	2	20.75	22.75	15.25
Scottsbluff	18.25	2	20.25	22.25	14.7

*Standard has no service station here.

CONTINENTAL OIL

Denver, Colo.	18	2	20	20	16.5
Pueblo, Colo.	17	2	19	19	16.5
Casper, Wyo.	18	2½	20.5	22.5	15
Cheyenne, Wyo.	19	2½	21.5	23.5	16.5
Butte, Mont.	20	2	22	22	18
Helena, Mont.	22	2	24	26	19
Salt Lake City, Utah	21.5	3½	25	27	18.5
Boise, Ida.	23	3	26	28	20.5
Albuquerque, N.M.	21.5	3	24.5	27.5	18.5

S. O. CALIFORNIA

Phoenix, Ariz.		3	25	28	21.5
Los Angeles, Cal.		2	16.5	20.5	15.5
Fresno, Cal.	16.5	2	18.5	22.5	17.5
San Francisco, Cal.	16	2	18	22	15.5
Reno, Nev.	19.5	4	23.5	27.5	19
Portland, Ore.	16	3	19	23	16.5
Seattle, Wash.	16	2	18	22	16.5
Spokane, Wash.	20	2	22	26	20.5
Tacoma, Wash.	16	2	18	22	16.5

S. O. LOUISIANA

Little Rock, Ark.	14.5	4	18.5	21.5	14.5
Alexandria, La.	14.5	2	16.5	19.5	14.5
Baton Rouge, La.	13.5	2	15.5	18.5	13
Lake Charles, La.	15	2	17	20	14.5
New Orleans, La.	*15	2	17	20	13.5
Shreveport, La.	13.5	2	15.5	18.5	13.5
Lafayette, La.	14.5	2	16.5	19.5	14
Bristol, Tenn.	18	3	21	24	16
Chattanooga, Tenn.	17.5	3	20.5	23.5	16
Knoxville, Tenn.	17.5	3	20.5	23.5	16.5
Nashville, Tenn.	16.5	3	19.5	22.5	16.5
Memphis, Tenn.	15.5	3	18.5	21.5	15.5

*Includes 1c city tax on gasoline and kerosene.

S. O. OHIO

	Gasoline T.W.	Tax	Total T. W.	S.S.	Oil T.W.
All Ohio points	19	2	21	25	15

MAGNOLIA PETROLEUM

Muskogee, Okla.	14	3	17	20	10
Oklahoma City	14	3	17	20	12
Tulsa, Okla.	15	3	†18	21	12
Fort Smith, Ark.	14.5	4	18.5	21.5	14.5
Little Rock, Ark.	14.5	4	18.5	21.5	14.5
Texarkana, Ark*	16.5	4	20.5	23.5	13
Dallas, Tex.	14	1	15	17	11
El Paso, Tex.	17	1	18	18	13
Fort Worth, Tex.	13	1	14	15	11
Houston, Tex.	15	1	16	18	12
San Antonio, Tex.	14	1	15	15	11

*Within city of Texarkana, Ark., the state tax on gasoline is 1c per gal. conforming with the Texas state tax. In Texarkana district outside of the city the 4c state tax applies.

†18c to regular power trade, 20c to all other tank wagon consumers.

V. M. & P. NAPHTHA

(Changes ordinarily occur coincident with gasoline)

	Oleum Spirits	V.M.&P. Naphtha	Cleaners Naphtha
Chicago	19	21	21
Detroit	20.2	22.7	22.7
Kansas City	19.2	21.2	21.2
Milwaukee	19.2	23.7*	23.7
Minneapolis	20.5	25*	25*
St. Louis	18.4	20.9	22.2
New York		19	

*Including state tax.

CANADA

(Per Imperial Gallon, which is 1.2 American Gallons)

ONTARIO

	Gasoline T.W.	Tax	Total	S.S.	Oil T.W.
Toronto	24.5	3	27.5	31	21.5
Ottawa	25.5	3	28.5	32	22.5
Cochrane	29.5	3	32.5	36	26
Ft. William	27.5	3	30.5	35	23.5

MANITOBA

Winnipeg	27.5	3	30.5	34	23.5

SASKATCHEWAN

Regina	29.5	0	29.5	34	25.5

ALBERTA

Edmonton	31.5	2	33.5	37	27.5
Calgary	29.5	2	31.5	35	26.5

BRITISH COLUMBIA

Vancouver	23	3	26	30	24.5

QUEBEC

Montreal	24.5	3	27.5	31	20
Quebec City	26.5	3	29.5	33	22
Three Rivers	26.5	3	29.5	33	23.5

NEW BRUNSWICK

St. John	27.5	3	30.5	35	26.5
Moncton	27.5	3	30.5	35	26.5

NOVA SCOTIA

Halifax	27.5	3	30.5	35	24.5
Sydney	29.5	3	32.5	38	26.5

PRINCE EDWARD ISLAND

Charlottetown	27.5	2	29.5	33	24.5

Note: In districts surrounding these points 1c additional is added to city price.

Foreign Agents Increase Inquiries For Gasoline but Price Sags

By Special Correspondent
NEW YORK, April 26

FOREIGN buyers showed a keener interest in gasoline at the end of the week, although comparatively few bulk sales were closed. Bulk gasoline was easier along the Atlantic seaboard some factors offering at 12½ cents against 13 cents the preceding week. Kerosene remained quiet and fairly steady.

Gas oil was stronger. At Atlantic seaboard refineries 36-40 was advanced ½ cent while little or nothing was offered for export in the south below 5¼ cents. Diesel oil was advanced 11½ cents by the Tide Water Oil Co., April 21 to $2.41½ a barrel.

Export Gasoline—New York

Export demand for gasoline was light, but the inquiry was more spirited. At New York harbor refineries U. S. Motor was freely offered at 12½ cents with rumors of offerings at 12¼ cents refinery, although one or two refineries were still asking 13 cents. California gasoline was available at 12½ cents, New York, which was held partly responsible for the decline here.

A British buyer was inquiring for a cargo of 45,000 barrels of U. S. Motor and 64-66 375 e.p. gasoline for May clearance, but this is pending. A French buyer was inquiring for 50,000 barrels of U. S. Motor and 64-66 375 e. p. gasoline did not buy. Cased gasoline was steady. A Near Eastern buyer purchased 20,000 cases of Motor and 64-66 from an Independent for May shipment.

Export Gasoline—Gulf Ports

Bulk prices were steady throughout the week. A leading Independent sold to a French buyer a cargo of 50,000 barrels of 64-66 375 e. p. gasoline for nearby shipment at 14¼ cents a gallon. Another Independent was working on an inquiry for 56,000 barrels of U. S. Motor and 64-66 375 e. p. gasoline for May shipment to the United Kingdom.

Cased gasoline was quiet. Motor was a trifle lower at $2.15 a case in cargo lots while 64-66 375 e. p. was still held at $2.40 a case. A leading Independent booked 40,000 cases for April-May shipment to the Far East, presumably Japan.

Domestic Gasoline—New York

Following the spell of cold weather, an unusually warm wave set in and consumption of gasoline soared sharply. The fact that several of the big refiners were offering U. S. Motor at 12½ cents refinery, and talk of offerings at 12¼ cents, failed to depress the market to any great extent. Jobbers are buying more heavily, and refiners are very optimistic. The trade is rife with rumors of an impending advance in tank wagon prices, regardless of the decline in bulk gasoline. U. S. Motor in tank cars delivered to the trade was held at 13½ to 14 cents a gallon. The price in steel barrels to garages was 19 cents a gallon.

Domestic Gasoline—Gulf Ports

Demand from jobbers is better and consumption is undoubtedly gaining. The asking price for U. S. Motor in tank cars at the refineries is still 11½ cents a gallon. Refiners are reluctant to sell very far ahead at this price, as the belief prevails that there will be a much higher market during the next few weeks.

Export Kerosene—New York

Export demand for kerosene lagged throughout the week. The tendency of prices was downward although no actual reductions were reported. No bulk sales developed as far as could be learned. Big refiners were quoting water white at 9¼ to 9½ cents a gallon, f. o. b. refiners with rumors current that 9 cents could have been done on a firm bid. Prime white was dull and easy at 8¾ cents a gallon, refinery. A French buyer was inquiring for 40,000 barrels of U. S. Motor 64-66 gasoline and prime and water white kerosene for nearby shipment but this failed to materialize. Cased kerosene was dull the movement being mainly against contract.

Export Kerosene — New Orleans

Dullness dominated this market. No bulk sales were reported nor were there any important inquiries heard of. Leading exporters were still asking 7½ cents a gallon for prime white in cargo lots while water white was unchanged at 8½ cents a gallon. European buyers appear more or less disinterested at present.

Cased kerosene demand also lagged although it was rumored that one of the leading Independents closed a sale of 30,000 cases for nearby shipment to South America. Cased prime was held at $1.70 and water at $1.80 in cargo lots.

Domestic Kerosene

Domestic demand for kerosene has been less active of late. Warmer weather all along the Atlantic seaboard tended to discourage buying, and the tendency of the market was downwards. However, most of the local refineries are asking 9¼ cents a gallon for water white at refineries and 10¼ cents in tank cars delivered to the trade while prime white was quoted ½ cent below water white. Jobbers are buying only as needed. Consumption is apparently on the wane. However, tank wagon prices were fairly steady throughout the week.

Gas Oil—New York

Featuring this market was the advance of ½ cent a gallon in 36-40 which is now quoted at 6½ cents and ¼ cent in 28-34 to 5¾ cents a gallon. The domestic demand is spirited while export buyers are keenly interested although unwilling to pay these prices. Heavy cracking is reported throughout the country and few of the refiners are inclined to offer much for future delivery. No bulk movements were reported.

Gas Oil—Gulf Ports

Prices were firmer and export interest is keener. A British buyer was inquiring for a cargo of 40,000 barrels of transparent gas oil for nearby shipment, but the buyer's ideas were considerably below those of refiners and this failed to materialize. For 26-28 transparent gas oil the price was firm at 5¼ to 5½ cents a gallon while 32 plus dark was firm at 5 cents a gallon.

Waxes—New York

Factors in this section still reported unusually dull conditions. Local dealers complain that a large Philadelphia refiner along with one or two big local exporters, are selling cheaply direct to European consumers on a c. i. f. basis, but are keeping prices up over here, and are ruining business for the smaller interests. At any rate export demand was sluggish, but prices did not show any marked changes. High grade fully refined waxes are moving a trifle more freely than a week ago.

Fully refined 120-122 A.m.p. is quoted at 6 cents while 123-125 is also held at 6 cents a pound. For 125-127 A.m.p. 6⅛ cents is asked. Offerings of 135-137 were freely made at 6⅞ to 7⅛ cents a pound. White crude scale 122-124 was offered at 5⅛ cents.

Waxes—Gulf Ports

Export demand lagged. Business was strictly hand-to-mouth. Domestic demand is also very disappointing and there was no bright spot in this market. For white crude scale 124-126 A.m.p. 5¼ cents was asked while semi refined 124-126 was held at 5¼ cents a pound. Fully refined 123-125 was quoted at 5¾ cents while 125-127 was held at 5⅞ cents. For 128-130 the price was 6 cents while 133-135 was quoted at 6½ cents and 135-137 at 6¾ cents.

Bunker Oil—New York

Demand for grade C bunker oil was decidedly less active than the previous week. The movement was almost entirely against standing contracts, and no business to speak of developed. For grade C at local refineries $1.75 a barrel was quoted while f. a. s. New York harbor refineries $1.81½ was the price. Diesel oil was dull and unchanged at $2.30 a barrel, but some observers are predicting a cut in this price soon.

Bunker Oil—Gulf Ports

Grade C bunker oil in cargo lots was available at $1.45 a barrel while for bunkering purposes the price was $1.60

a barrel. Demand was light. No bulk sales were reported although a European buyer was inquiring for a cargo of 40,000 barrels for May shipment to the Continent. At Tampico grade C in cargoes was quoted at $1.40 a barrel, including taxes while for bunkering the price was $1.50 a barrel. Heavy Panuco crude oil was quiet and unchanged at $1.18 a barrel taxes to be added.

Lubricants—New York

Cylinder stocks were a trifle steadier than during the previous week. Export buyers are showing a little more interest but are still skeptical about buying ahead and the bulk of the business was hand-to-mouth. On the other hand, improved weather conditions have stimulated domestic demand a little and refiners are more confident, being less inclined to make concessions. Stocks abroad are reported small. Pennsylvania 600 s. r. cylinder oil is held at 22½ to 23 cents a gallon, in barrels, New York.

Lubricants—Gulf Ports

Dullness permeated the local market throughout the week. A French buyer was inquiring for a cargo of 40,000 barrels, of assorted lubricants but his ideas were considerably below refiners' and this failed to develop. Domestic demand was a shade better, but stocks are large and prices for most grades were weak. There is a little oil being shipped abroad against contracts but new buying was strictly hand-to-mouth.

Petrolatums

Demand for snow white petrolatum is more spirited. Lily white is also moving in a larger way, Amber and dark green remained quiet. The demand for medicinal oils is less active.

British Importations

During the two weeks ended March 22, 54,497,700 imperial gallons of petroleum were imported into the United Kingdom. Larger receipts included:

Consignee	Imperial Gallons	Product	Port of Origin
At Southampton—			
Brit-Mex	1,781,285	Fuel Oil	Tampico
At Grangemouth—			
Scottish Oils	2,354,000	Crude	Abadan
Scottish Oils	2,333,500	Crude	Abadan
At London—			
Anglo-Amer	2,184,905	Gas Oil	Baytown
Vacuum Oil	151,075	Lubes	New York
Lubes and Fuel Oils	1,102,500	Lubes	Philadelphia
United Oil Imp	425,000	Gasoline	New Orleans
At Liverpool—			
Lubes and Fuel Oils	230,400	Lubes	Marcus Hook
Vacuum Oil	300,000	Lubes	Philadelphia
At Barrow—			
United Oil Imp.	554,000	Gasoline	B. Rouge
At Hull—			
Anglo-Amer	2,303,130	Gasoline	Paulsboro
At Manchester—			
Lubes and Fuel Oils	149,600	Lubes	Philadelphia
Lubes and Fuel Oils	2,813,300	Gasoline	Baton Rouge
At Swansea—			
Nat'l Oil Ref	2,491,265	Crude	Abadan
Nat'l Oil Ref	2,452,035	Crude	Abadan
Nat'l Oil Ref	2,737,010	Crude	Abadan
Nat'l Oil Ref	2,418,390	Crude	Abadan
Nat'l Oil Ref	173,840	Crude	Abadan
At Glasgow—			
Brit-Mex	689,700	Gasoline	S. Pedro
At Grangemouth—			
Scottish Oils	2,344,250	Gasoline	Abadan

Complete Export Markets

New York Export Market

GASOLINE	April 26	April 19
U. S. Motor Tank cars Ref.	12½	-13
U. S. Motor cases	28.40	-28.40
California grade U. S. Motor F. O. B. N. Y. Bulk	12½	-12¾
KEROSENE		
41-43-150 W. W. Tank cars Ref.	09¼	-09¼
41-43-150 W. W. Cases	19.40	-19.40
42-44-110 S. W. Cases	18.15	-18.15
GAS OIL		
36-40, Bulk Refinery	-06½	-06
28-34, Bulf Refinery	-05¾	-05½
MEXICAN BUNKER OIL		
Grade C, f. o. b. ref. Bulk	1.75	- 1.75
Diesel Oil f. o. b. ref. Bulk	2.41½	- 2.30
LUBRICATING OILS		

The following prices are cooperage basis f. o. b. New York, products being manufactured by inland refineries.

CYLINDER OILS (Bbls.) 1 inch Immersion Test; All Penna. Products		
Filtered D 600	30	-30
Filtered E 600	29	-29
Unfiltered 600 s. r.	22½	-23½
Unfiltered 650 s. r.	29	-29
600 flash s. r.	30	-30
630 Flash	41	-41
RED PARAFFIN (Bbls.) (Viscosity at 70)		
300 vis. No. 5 color	21	-21
250 vis. No. 5 color	20	-20
High Viscosity No. 5 color	25	-25
NEUTRAL OILS (Bbls.) (Viscosity at 70)		
200 vis. at F. Pale No. 3 color	-31	-31
180 Pale No. 3 color	-29	-29
150 Pale No. 3 color	-24½	-24½
BLACK OIL (Bbls.)		
25-30 cold test	13	-13
15 cold test	14¾	-14½

MEDICINAL OILS
(Includes Price of Drums)
(Penna. Stocks)

	April 26	April 19
Domestic 875-.885 s. g.	1.00-1.08	1.00-1.08
Domestic 865-.870 s. g.	.75- .80	.75- .80
Russian 885-.890 s. g. 325-350 vis.	1.20-1.25	1.20-1.25
WAXES (Penna. Stocks) (F. A. S. Carload Lots)		
WHITE CRUDE SCALE		
122-124 A. m. p.	-05¼	-05¼
124-126 A. m. p.	-05¼	-05¼
MATCH		
105-108 A. m. p.	-06	-06
FULLY REFINED		
120-122 A. m. p.	-06	-06
123-125 A. m. p. Philadelphia	-06	-06½
125-127 A. m. p.	-06½	-06¾
128-130 A. m. p.	-06¾	-06¾
130-132 A. m. p.	-06¾	-06½
133-135 A. m. p.	-06¾	-06¾
135-137 A. m. p.	-06¾ 07	-07¼
SEMI REFINED		
122-124 A. m. p.	-05¾	-05¾
YELLOW CRUDE SCALE		
124-126 A. m. p.	-05	-05

PETROLATUMS
(Penna. Stocks)
Per Pound

Dark Green	03	03
Veterinary	03¼	03¼
Light Amber	03¾	03¾
Dark Amber	03¾	03¾
Cream	06¾	06¾
Lily White	08½	08½
Snow White	11¾-11½	11¾-11½

Gulf Export Market

GASOLINE
F. O. B. Seaboard
Shipments of 20,000 Bbls. and over

	April 26	April 19
U. S. Motor, Cargo	11½-.11¾	11½-.11¾
60-62 400 e. p. Bulk	13¼	-.13¼
64-66 375 e. p. Bulk	14½	-.14½
U. S. Motor, Cases (cargo lots)	2.15	2.20
64-66, Cases (cargo lots)	2.40	2.40
KEROSENE		
Water White, 41-43 bulk	08½	-08½
Prime White, 42-44 bulk	07½	-07½
Water White, cases (cargo lots)	1.80	-1.80
Prime White, cases (cargo lots)	1.70	-1.70
DOMESTIC GAS AND BUNKER OIL		
26-28, gravity, bulk*	05½	-05½
32 plus, bulk, Dark	05	-05
Grade C, Bunker oil	1.60	-1.60
Cargoes	1.45	-1.45

*Transparent through neck of a 4 oz. bottle.

MEXICAN CRUDE AND BUNKER OILS
F. O. B. Steamer Tampico

Heavy, Taxes to be added	1.18	-1.18
Grade C, Bunker oil Taxes paid	1.40-1.45	-1.45
Grade C, Bunker oil F. O. B. New Orleans	1.60	-1.60

SOUTH TEXAS
(Viscosity at 100°F; cold test 0)
(Tanker, F. O. B. Houston)

*LUBRICATING OILS	April 26	April 19
100 Vis. No. 2 Unfiltered Pale	07	07
150 Vis. No. 2½ Unfiltered Pale	09	09
200 Vis. No. 3 Unfiltered Pale	11	11
300 Vis. No. 3 Unfiltered Pale	13½	13½
500 Vis. No. 3½ Unfiltered Pale	12	14
200 Vis. No. 5½ Red Oil	11	11
300 Vis. No. 5½ Red Oil	12	12
500 Vis. No. 6 Red Oil	13	13
800 Vis. No. 6 Red Oil	16	16¾

*These prices are entirely nominal owing to wide fluctuations.

Pacific Export Market

(Cargo lots quotations at seaboard, Los Angeles

	April 26	April 19
Gasoline, U. S. Motor— 54°-56°	11 -11¼	11 -11½
Gasoline, U. S. Motor— blends and special cuts	11¼-11½	11¼-12
Gas Oil, 24°—30°B. per bbl.	$1.15	$1.15
Diesel Oil, 27°B—plus per bbl.	$1.15	$1.15
Bunker Oil, 14°—18°B. per bbl.	$1.00	$1.00
Fuel Oil, 14°—18°B. per bbl.	$1.00	$1.00
Kerosene, W. W. 40°—42° B per gal., 125-150 flash test	.06 -07	.06 -07½
Cased Goods		
Gasoline, U. S. Motor	$2.55	$2.55
Kerosene, W. W. 38°—40° B per case, flash test 125-150	$1.50-1.55	$1.50-1.55

N. Y. Domestic Market

The following light oil, gas and fuel oil prices are F. O. B. New York refineries, being products made from Domestic (including California) and Mexican Crudes.

	April 26	April 19
U. S. Motor Gasoline, Tank Cars Delivered greater N. Y.	-13½	-14
U. S. Motor Gasoline, Tank Cars Bayonne	-12½	-13
Kerosene, 41-43 150 W. W. Tank Cars De'd greater N. Y.	-10¼	-.10¾
Grade C Bunker f.o.b. N. Y. Ref.	1.75	1.75
Diesel Oil f. o. b. Refinery	2.41½	2.30
Gas Oil, 36-40, Bulk Refinery	-06½	-06
Gas Oil 28-34 Bulk, Refinery	-05¾	-05½

Crude Oil Prices All Fields

PRICES IN EFFECT, *April 26*

EASTERN FIELDS

Posted by Joseph Seep Purchasing Agency

Penna. Grade Oil in New York Transit Lines (Alleghany, N. Y. District)	$3.65
Bradford District Oil in National Transit Lines (Bradford District)	3.65
Penna. Grade Oil in National Transit Lines (Other Pennsylvania)	3.55
Penna. Grade Oil in Southwest Penna. Pipe Lines (Other Pennsylvania)	3.55
Penna. Grade Oil in Eureka Pipe Lines (West Virginia)	3.50
Penna. Grade Oil in Buckeye Pipe Lines (Macksburg, O. district)	3.30
Keister Grade in National Transit Lines (Butler Co.)	2.45
Gaines, Tioga Co. (Pa.)	2.95
Cabell Grade in Eureka Pipe Lines (West Virginia)	2.20
Corning Grade in Buckeye Pipe Lines (Ohio)	2.35
*Somerest Medium in Cumberland Pipe Lines (Kentucky)	2.30
*Somerset Light in Cumberland Pipe Lines (Kentucky)	2.45
Ragland Grade in Cumberland Pipe Lines (Kentucky)	1.15

*Somerset oil run prior to Oct. 1, 1923, takes price of 6 cents lower than above quotations.

CENTRAL STATES FIELDS

Posted by Ohio Oil Co.

Wooster	$2.35	Illinois	$2.12
Lima	2.23	Plymouth	1.65
Waterloo	1.10	*Canadian Petrolia	2.63
Indiana	2.00	*Posted by Imperial Oil, Ltd.	
Princeton	2.12		

OKLAHOMA, KANSAS And NORTH TEXAS FIELDS

(Prices of Prairie Oil & Gas Co.)
(Prairie's prices apply in Oklahoma, Kansas, North and Central Texas)

28-28.9	$1.40	41-41.9	$2.44
29-29.9	1.48	42-42.9	2.52
30-30.9	1.56	43-43.9	2.60
31-31.9	1.64	44-44.9	2.68
32-32.9	1.72	45-45.9	2.76
33-33.9	1.80	46-46.9	2.84
34-34.9	1.88	47-47.9	2.92
35-35.9	1.96	48-48.9	3.00
36-36.9	2.04	49-49.9	3.08
37-37.9	2.12	50-50.9	3.16
38-38.9	2.20	51-51.9	3.24
39-39.9	2.28	52 and above	3.32
40-40.9	2.36		

The Texas Co. adopted same schedule as Prairie on Feb. 1.

Humble Oil & Refining Co. Prices

(Ranger, North Texas, Mexia, Powell, Richland, Wortham, Lytton Springs, Currie and Moran crudes all in Texas.)

Effective Feb. 1, Humble posted same gravity and price schedule in all the above fields as that posted by Prairie, excepting that Humble is paying 8c less for each full degree below 28 gravity.

Magnolia Petroleum Co. Prices In Oklahoma, Kansas and North Texas

Effective Feb. 1, Magnolia posted same gravity and price schedule as Prairie, in all fields where it purchases on a gravity basis, excepting that it is paying $1.20 for all oil below 28 gravity.

Effective Feb. 1, Corsicana heavy was advanced to $1.15 per barrel.

NORTH LOUISIANA—ARKANSAS FIELDS

***Prices of the Standard Oil Co. of Louisiana**

Caddo, below 32	$1.85
" below 32-34.9	2.00
" 35-37.9	2.10
" 38 and above	2.20
Homer, below 31	1.60
" 31-32.9	1.75
" 33-34.9	1.85
" 35 and above	1.95
Haynesville, below 33	1.75
" 33 and above	1.85
El Dorado, below 33	1.75
" 33 and above	1.85
Bull Bayou, 32-34.9	1.70
" 35-37.9	1.85
" 38 and above	2.00
Smackover, below 24	1.00
" 24-24.9	1.25
" 25-25.9	1.30
" 26-26.9	1.35
" 27 and above	1.40
De Soto	2.05
Crichton	1.85
Bellevue	1.50
Cotton Valley	1.10
**Urania, La	1.30

*Same prices maintained by The Texas Co., Gulf Refining Co. of Louisiana and Louisiana Oil Refining Corp. All purchasers of Smackover have maintained since Feb. 1 and 2, the same gravity and price schedule as Standard. Guif is paying 95c for Calion (East El Dorado Crude.)

**Posted by Louisiana Oil Refining Corp.

STEPHENS, ARKANSAS

Posted by Louisiana Oil Refining Corp., and Atlantic Oil Producing Co.

26 and above.....$1.50 Below 26.....$1.30

GULF COASTAL FIELDS

Posted by Humble Oil & Refining Co.

Grades A	$1.50	27-27.9	$1.40
Grades B:		28-28.9	1.45
Below 25	1.25	29-29.9	1.50
25-25.9	1.30	30 and above	1.55
26-26.9	1.35		

Humble is paying the above prices in Goose Creek, Hull, Liberty, West Columbia, Orange and Pierce Junction fields. All other Gulf Coastal crudes are classified as A grades only. Other major purchasers are The Texas Co., Gulf Production Co., Sun Oil Co., and Sinclair Crude Oil Purchasing Co.

ROCKY MOUNTAIN FIELDS

Prices of Ohio Oil Co. and Midwest Refining Co.

†Salt Creek 29-29.9	$1.48
Salt Creek 30-30.9	1.56
Salt Creek 31-31.9	1.64
Salt Creek 32-32.9	1.72
Salt Creek 33-33.9	1.80
Salt Creek 34-34.9	1.88
Salt Creek 35-35.9	1.96
Salt Creek 36-36.9	2.04
Salt Creek 37 and above	2.12
Elk Basin	2.15
Grass Creek light	2.15
Big Muddy	2.00
Lance Creek	2.15
Rock Creek	2.00
†Osage	2.15
†Cat Creek, Mont	2.15
Sunburst, Mont	1.15
†Hogback, N. Mex	2.20
Artesia, N. Mex	1.70

†Posted by Midwest Refining Co. Midwest also buys Grass Creek light, and Elk Basin.

The Texas Co. buys Salt Creek and Big Muddy crude.

CALIFORNIA

Standard Oil Co. of California

Santa Maria and Ventura Posted by *Union Oil Co.

Gravity	Signal Hill Huntington Beach	Ingle-wood Torrance	Whittier La Habra	Newhall, McKittrick, Kern River	Olinda-Brea Canon, Richfield	Athens-Rosecrans Dominguez	Monte-bello	Coyote Hills	Santa Fe Springs	Midway-Sunset Elk Hills	Lost Hills	Coalinga	Wheeler Ridge	Santa Maria	Ventura
14-14.9	$ .85	$ .85	$ .85	$ .75	$ .85	.....	$ .85	$ .85	.....	$ .75	$ .75	$ .75	$ .75	$ .85	$ .85
15-15.9	.87	.87	.85	.75	.87	.....	.85	.85	.....	.75	.75	.75	.75	.85	.85
16-16.9	.90	.90	.85	.75	.90	.....	.85	.85	.....	.75	.75	.75	.75	.85	.85
17-17.9	.94	.94	.85	.75	.94	.....	.85	.85	.....	.75	.75	.75	.75	.85	.85
18-18.9	.98	.98	.86	.75	.98	.....	.86	.86	.....	.75	.75	.75	.75	.85	.85
19-19.9	1.04	1.04	.87	.75	1.04	.....	.87	.87	.....	.75	.75	.75	.75	.85	.85
20-20.9	1.10	1.10	.89	.....	1.10	.....	.89	.90	.....	.82	.82	.79	.78	.90	.90
21-21.9	1.16	1.16	.91	.....	1.16	.....	.91	.98	.....	.90	.90	.86	.81	.97	.97
22-22.9	1.22	1.22	.94	.....	1.22	.....	.94	1.06	.....	1.00	1.00	.93	.85	1.04	1.04
23-23.9	1.28	1.28	.....	.....	1.28	.....	.97	1.14	.....	1.11	1.11	1.00	.89	1.11	1.11
24-24.9	1.34	1.34	.....	.....	1.34	$1.34	1.01	1.22	1.02	1.22	1.22	1.07	.93	1.18	1.18
25-25.9	1.40	1.40	.....	.....	1.40	1.40	1.05	1.30	1.08	1.33	1.33	1.14	.97	1.25	1.25
26-26.9	1.46	1.46	.....	.....	1.46	1.46	1.09	1.38	1.16	1.44	1.44	1.21	1.01	1.32	1.32
27-27.9	1.52	1.52	.....	.....	1.52	1.52	1.13	1.46	1.24	1.55	1.55	1.28	1.05	1.39	1.39
28-28.9	1.58	1.58	.....	.....	1.58	1.58	1.17	1.54	1.32	1.66	1.66	1.35	.....	1.46	1.46
29-29.9	1.64	.....	.....	.....	1.64	1.64	1.21	1.62	1.40	1.77	1.77	1.42	.....	1.53	1.53
30-30.9	1.70	.....	.....	.....	1.70	1.70	1.25	1.70	1.48	1.88	1.88	1.49	.....	1.60	1.60
31-31.9	1.76	.....	.....	.....	.....	1.76	.....	.....	1.60	1.99	1.99	1.56	.....	.....	1.67
32-32.9	1.84	.....	.....	.....	.....	1.84	.....	.....	1.72	2.10	2.10	1.63	.....	.....	1.73
33-33.9	.....	.....	.....	.....	.....	1.92	.....	.....	1.84	2.21	2.21	1.70	.....	.....	1.79
34-34.9	.....	.....	.....	.....	.....	2.00	.....	.....	1.96	.....	2.32	1.77	.....	.....	1.85
35-35.9	.....	.....	.....	.....	.....	2.08	.....	.....	2.08	.....	.....	1.84	.....	.....	1.92
36-36.9	.....	.....	.....	.....	.....	2.16	.....	.....	2.16	.....	.....	.....	.....	.....	
37-37.9	.....	.....	.....	.....	.....	2.24	.....	.....	2.24	.....	.....	.....	.....	.....	
38-38.9	.....	.....	.....	.....	.....	2.34	.....	.....	2.34	.....	.....	.....	.....	.....	
39-39.9	.....	.....	.....	.....	.....	2.44	.....	.....	2.44	.....	.....	.....	.....	.....	
40-40.9	.....	.....	.....	.....	.....	2.54	.....	.....	.....	.....	.....	.....	.....	.....	
41-41.9	.....	.....	.....	.....	.....	2.64	.....	.....	.....	.....	.....	.....	.....	.....	
42-42.9	.....	.....	.....	.....	.....	2.74	.....	.....	.....	.....	.....	.....	.....	.....	

*Union Oil Co. also purchases Long Beach crude and is maintaining the same gravity and price schedule in that field as the Standard maintains in Signal Hill and Huntington Beach fields. The Union also buys and pays the same prices as the Standard in the Rosecrans-Dominguez fields, on gravities ranging from 14 degrees to and including 24.9 degrees; and in Santa Fe Springs, on gravities ranging from 20 to and including 23.9 degrees.

REFINERS' and COMPOUNDERS' SUPPLIES

Following are the average market prices for the week on materials used by refiners and compounders f. o. b. shipping point as effective this date.

Refiners' Supplies

	April 26	April 19
Soda Ash light 58% bags.cwt.	-$1.38	-$1.38
Silicate of Soda 60 deg. drums.....cwt.	- 1.65	- 1.65
Sal Soda wks.....1.10-	1.25	1.10- 1.25
Caustic Soda 70% solid..cwt.	- 3.10	- 3.10
Chloride of Lime.....cwt. works.....	- 2.00	- 2.00
Sulphuric Acid 60 deg. tank cars f. o. b. shipping point.....per ton	-10.00	-10.00
Liquid Chlorine tank cars works.....lb.	- .04	- .04

Compounders' Supplies (Open Market)

Vegetable Oils—		
Linseed carloads spot.....lb.	11.1	10.7
April.....	11.1	10.7
Tanks, spot.....	10.1	9.8
Boiled carloads spot.....lb.	11.1	10.8
*Soya Bean spot, Bbls....lb.	13½	13½

Animal Oils—		
English Degras.....lb.	.05½	-.05½
Domestic Degras, bbls., carloads.....lb.	-.04¾	-.04¾
*Horse.....lb.	-.09½	-.09½
Oleic Acid—		
Dist. Bbls.....lb..10¾	-.11	.10¾-.11
Saponified Bbls.....lb..11	-.11¼	.11 -.11¼
Castor Oil—		
No. 1 Carlots, Bbls.....	-.13¼	-.13¼
No. 3 Carlots, Bbls.....	-.12¾	-.12¾
Lard Oils—		
Prime Winter Strained. to 1½ffa.40/45c.t.lb.	.16¾	.16¾
Extra Winter Strained. 2 to 4½ffa.40/45c.t.lb.	.13	.13½
Extra..... 4 to 5 ffa.40/45c.t.lb.	.12½	.13
Extra No.1 7 to 10 ffa.40/50c.t.lb.	.12¼	.12¾
No. 1.....15 to 18 ffa.40/45c.t.lb.	.12	.12½
No. 2.....22 to 23 ffa.40/45c.t.lb.	.11¾	.12¼
Prime Edible Tallow under 1½ffa. 40/45c.t.N.Y.....lb.	-.09½	-.09½
Tallow acidless.....lb.	-.12¼	-.12½
Lard Stearine.....lb.	nominal	nominal
Oleo Stearine.....lb.	-.11	-.11¼
Neatsfoot Oil—		
Pure.....bbls.-lb.	.16½	.16¾
Extra.....do lb.	.12¼	.12¾

No. 1.....bbls.-lb.	.12	.12½
Cold pressed.....lb.	-20¼	.20½
Fish Oils—		
Menhaden Oil		
Light pressed.....gal.	-.65	-.65
White.....gal.	-.67	-.67
Yellow bleached.....gal.	-.70	-.70
*Herring tank cars coast.....gal.	-.50	-.50
Whale, extra winter bleached.....gal.	-.82	-.82
Seal.....gal.		Nominal
Naval Stores—		
Turpentine, N. Y.....gal.	.92½	.96
Turpentine†.....gal.	.86½	.90
Rosin, B. N. Y.....bbl.	8.40	8.50
Rosin, F. N. Y.....bbl.	12.50	12.35
Rosin, B†.....bbl.	6.75	8.00
Rosin, F†.....bbl.	11.00	10.00
Rosin Oil 1st run.....gal.	.55	.55
Rosin Oil 2nd run.....gal.	.60	.60
Pine Tar—		
Kiln Burnt.....bbl.	14.50	15.00
Retort.....bbl.	15.50	15.00

†Savannah, Ga. market.
*Nominal.

Alcohol—Denatured		
Formula 5		
Bbls.....gal.	-31	-31
Drums.....gal.	-27	-27

Caustic Soda Is Steady; Sulfuric Gaining

By Special Correspondent

NEW YORK, April 26.—Following is a review of the markets for oils and supplies used in compounding and refining:

Linseed Oil demand lagged. Leading crushers offering more freely. Linoleum makers buying sparingly. Tendency easier. Flaxseed fluctuations narrow. Boiled oil dull. Soya bean oil demand is less active. The price is steady.

Alcohol business slightly better. Prices still easy. Offerings larger. Paint trade buying more freely.

Fish Oils dull. Crude menhaden nominal. Offerings small. Light pressed menhaden oil demand better at 65 cents a gallon in barrels, New York. Herring oil marking time.

Animal Oils quiet. Price fluctuations narrow. Pure neatsfoot oil offered more freely. Oleic acid demand slightly better. Tallow oil marking time. Domestic degras demand better. Oleo stearine dull. Horse oil easy at 9¼ to 9½ cents.

Soda Ash in better demand, but buying chiefly for immediate needs. Fair movement against old contracts.

Caustic Soda prices steady. Good contract movement prevents stocks from piling up.

Sulfuric Acid demand better. Outlook bright owing to strong sulfur market. Stocks moderate.

Sal Soda quiet. Steady. More interest in spot but little demand for future deliveries. Stocks fair.

Naval Stores demand steady but price fluctuations narrow. Domestic demand for turpentine is more spirited. Export buyers, however, holding off. Medium grade rosins in better demand. Tar and pitch quiet but steady. Rosin oils easy. Stocks fair.

Benzol Market

NEW YORK, April 26.—Production of motor benzol continued to decline last week. Demand on the other hand is steadily gaining and the price was firm at 24 cents per gallon in tank cars at the ovens. Leading marketers are shipping large quantities against standing contracts and report little or none available for spot delivery.

A continued decline in the output is looked for for some time owing to the slump in coke production. There is good export demand for motor benzol but marketers are not in a position to take care of all of this business.

The Barrett Co. prices are:

	Tank Cars	Drums
Motor Benzol, ovens.....	24c	..
Commercially pure benzol..	24	29
Commercial 90% benzol....	24	29
Commercially pure toluol..	35	40
Commercial xylol	36	41
Solvent Naphtha	35	40

Cleveland Stock Market

April 23

	Par	Bid	Asked	Last Sale
Canfield Oil Co.....$100	.....	107	107
do pfd..... 100	.....	100	100
Fred G. Clark Co..... 10	3¼	4¼	3¼
National Refining Co... 25	39	42¼	38¾
do pfd..... 100	127	135	129½
Paragon Refining Co... 25	7	7¼	7¼
do pfd..... 100	....	....	67

x—Ex dividend.

Pennsylvania Firm Despite Weather

CLEVELAND, OHIO, Apr. 26.—Despite the inclement weather which prevailed throughout the past week the Pennsylvania market has held up on a firm basis and refiners are optimistically predicting a much better showing for the coming week. All that seems to be necessary for this showing is a continued spell of warm weather. U. S. Motor gasoline has been moving at 13c but not in very great quantities. Kerosene seems to be the favorite of the market having advanced ½c over the past week. Many contracts are being made for May delivery at 9½c for the 45 water white grade. While neutral stocks have been scarce and moving steadily, cylinder stocks continue weak and sluggish. A wide range can be found in the quotation for 600 steam refined anywhere from 14c to 16½c. Bright stocks are reported stronger. Petrolatums are firm and wax slightly easier.

Eastern and Central Kentucky Markets

LEXINGTON AND ASHLAND, KY., Apr. 26.—Prices in the Central district have advanced during the past week from ¼ to ½c. Kerosene is quoted at 10c flat. Practically no change appears in the Eastern district. The only exception noted is on 24-26 fuel oil which is selling at 5c today. Today's quotations are:—

	Eastern	Central
58-60 Gasoline	13	12½
60-62 Gasoline	13½	....
64-66 Gasoline	14¼	13¾
68-70 Gasoline 350 to 360 end point	15	14¾
Fuel oil 24-26	5	....
Kerosene 41-43 water white	....	10
Gas oil	6¼	6¼

OIL STOCKS AND FINANCES

National Petroleum News

Transcontinental Oil Co. Reports 1925 Profit

CLEVELAND, April 24.—Transcontinental Oil Co. climbed a round of the ladder last year and for the first time in several years was able to report the results of the year's operations in black. The company, after depletion, depreciation, interest and taxes, returned a net profit of $792,580 as compared with a net losses of $621,764 in 1924 and $2,363,221 in 1923. Gross earnings increased more than 30 per cent.

Consolidated income accounts for 1925 and 1924 follow:

	1925	1924
Gross earnings	$19,304,630	$14,100,723
Expenses, etc.	16,388,548	12,210,973
Operating profit	$ 2,916,082	$ 1,889,750
Interest, etc.	614,897	1,780,347
Dry holes, deprec., etc.	1,508,605	731,167
Net profit	$ 792,580	*$ 621,764

*Net loss.

Consolidated balance sheets as of Dec. 31 and Jan. 31, 1925, the date on which assets of the company were written down $150,000,000, are as follows:

ASSETS	Dec. 31	Jan. 31
Property	$45,866,120	$44,695,148
Investments	158,087	148,484
Sinking fund	27,968	9,196
Deferred charges	239,856	228,420
Patents, trademarks	1,000,000	1,000,000
Cash	731,531	1,032,416
Notes receivable	205,911	147,578
Accounts receivable	926,832	1,132,849
Inventories	2,941,710	2,461,732
Total	$52,098,019	$51,320,823
LIABILITIES		
Preferred stock	$15,750,000	$15,750,000
Common stock	24,898,094	24,788,892
Funded debt	7,185,892	7,921,807
Contingent res.	983,396	1,293,167
Insurance res.	24,007	.....
Accounts payable	1,306,110	1,233,446
Accruals	258,467	333,511
Notes and accept.	800,306	.....
Bank loans	100,000	.....
Earned surplus	792,580	.....
Total	$52,098,019	$51,320,823

Ohio Oil Income Turns Upward Again in 1925

CLEVELAND, April 24.—Indicated net profits of the Ohio Oil Co. in 1925 amounted to $9,383,253, equivalent to $3.91 per $25 share. In 1924 indicated net profits were $4,548,274 or $1.89 a share. The company does not issue an earnings statement but amount of profits may be approximated by taking into account the $3,383,253 increase in the surplus account and the $6,000,00 dividends paid last year.

Since the dissolution, net profits, rate of earnings on capital stock, and book value of stock as of Dec. 31 each year, have been:

Year	Net Profits	Rate %	Book Value
1925	$ 9,383,253	17.64	*$ 39.95
1924	4,548,274	7.56	*38.54
1923	6,084,953	10.14	*38.14
1922	8,471,730	14.12	*37.61
1921	3,783,121	25.24	146.34
1920	19,523,399	130.16	150.80
1919	12,776,221	85.17	130.69
1918	12,288,894	81.92	131.39
1917	13,503,828	90.02	136.41
1916	14,835,178	98.90	134.70
1915	16,621,920	110.80	139.75
1914	9,720,354	64.80	†130.80
1913	22,803,661	152.00	†107.05

* After 300% stock dividend
† Before disposing of pipe line properties.

Ohio Oil balance sheet of Dec. 31, 1925, shows an increase in inventories of $1,600,000 during 1925, and a gain of $800,000 in investments but a small writing down in the plant account. On Dec. 31 current assets totaled $69,653,395 and current liabilities only $2,707,845.

Balance sheets of Dec. 31, 1925 and 1924, compare:

ASSETS	1925	1924
Plant*	$30,015,540	$30,905,391
Cash	1,873,824	1,895,172
Notes, acc'ts rec.	3,422,235	2,762,168
Inventories	30,493,443	28,880,949
Investments	33,863,895	33,011,093
Unadj. debits	209,073	243,209
Total	$99,878,010	$97,697,982
* After depletion and depreciation		
LIABILITIES		
Capital stock	$60,000,000	$60,000,000
Funded debt	267,000	267,000
Notes, acc'ts pay.	903,072	2,671,000
Unadjusted credits	474,829	603,494
Tax reserve	1,806,774	1,103,893
Minority interests	548,766	558,055
Surplus	35,877,569	32,494,316
Total	$99,878,010	$97,697,982

Ohio Fuel Nets $2.46 A Share

PITTSBURGH, April 24.—Ohio Fuel Corp. and affiliated companies report net income of $10,260,845 in 1925 after all expenses and reserves, equivalent to $2.46 per $25 share on the 4,158,340 shares outstanding at the end of the year. Consolidated income account for 1925 follows:

Gross revenue	$40,438,227
Expenses & taxes	26,723,793
Depreciation	5,405,911
Operating income	$ 8,308,523
Other income	2,162,937
Total income	$10,471,460
Interest	210,615
Net income	$10,260,845
P. & L. surplus	23,321,957

Swan-Finch Oil Corp.—Dividend of 7 per cent declared on preferred stock payable May 15 to stock of April 30 record, covering accumulations through the second quarter of 1925.

Sinclair Crude Oil Co. Reduces Inventory

NEW YORK, April 24.—Balance sheet of Sinclair Crude Oil Purchasing Co., owned half and half by Sinclair Consolidated Oil Corp. and Standard Oil Co. of Indiana, shows as of Dec. 31, 1925, current assets of $105,157,381 and current liabilities of $6,029,426. There was a profit and loss deficit of $452,258, compared with a deficit of $575,345 at the end of 1924. Crude oil inventory decreased approximately $4,700,000 during 1925. Balance sheets as of Dec. 31 compare:

ASSETS	1925	1924
Land, tanks, etc.	$ 16,397,376	$ 16,292,386
Bond discount	1,355,710	370,872
Deferred charges	109,796	33,786
Cash	7,214,702	1,700,223
Acc'ts receiv.	11,820,694	9,315,009
Crude oil inven.	85,895,750	90,607,115
Materials, sup.	157,707	137,707
Total	$122,951,735	$118,457,098
LIABILITIES		
Capital stock	$ 60,000,000	$ 60,000,000
Funded debt	50,000,000	50,000,000
Depreciation	4,308,306	2,727,300
Insurance res.	.....	1,162
Unadjusted cred.	452,091	273,673
Notes payable	.....	3,000
Acc'ts. payable	4,394,297	2,049,664
Interest taxes	1,635,129	1,495,337
Sediment in stocks reserve	2,614,170	2,482,308
Deficit	452,258	575,346
Total	$122,951,735	$118,457,098

S. O. California's Tax Outlay is Large

CLEVELAND, April 17.—That taxes make up a large item in the expenses of oil companies is shown by the case of the Standard Oil Co. of California which last year paid out $6,907,505 of its income in one or another form of taxes. The exact percentage this sum was of the net operating income is not revealed in the company's annual report but it is approximately one-seventh.

The total taxes were dividended as follows:

Federal income tax, 1925 estimated	$2,365,000
Federal capital stock tax	294,253
Franchise and licenses	586,269
Property taxes	3,661,983
Total	$6,907,505

The California company also collected for the states in which it distributes gasoline, $7,746,561 in motor vehicle taxes, as follows:

California	$4,485,776.46
Arizona	449,317.07
Idaho	43,233.17
Nevada	182,791.19
Oregon	1,215,416.62
Washington	1,368,474.31
Utah	1,552.18

Transactions In Oil Shares on New York Stock Exchange

1925 High	1925 Low	1926 High	1926 Low		Listed Capital	Par Value	Stocks	Div. Rate	Last Paid	Transactions week ended April 24 Sales	First	High	Low	Last	Chg'e
.....	.....	26¼	24⅞	(sh)	713,000	N.P.	Amerada Corp	40cQ	Apr. 30, 26	3,200	25⅞	*26¼	25⅞	26¼	+ ⅜
79¾	48	74	63	(sh)	200,000	N.P.	American Republics	.....	.....	500	67	68¾	67	67⅞	+3¼
47¼	32	59½	44¾	$	56,000,000	$25	Associated Oil	50cQ	Apr. 26, 26	1,200	47½	53½	47½	53	+5
117½	95½	111¾	97		50,000,000	100	Atlantic Refining	.....	June 16, 24	12,100	106¼	110½	106½	109	+2¾
117¾	113½	117½	115¼		20,000,000	100	do pfd	$1¾Q	May 1, 26	200	115¼	116	†115¼	116	+1¾
33½	18¾	33½	24⅜		18,428,350	25	Barnsdall Corp. A	50cQ	Apr. 2, 26	11,400	25½	28	25⅜	27½	+2
30	16	29½	23¼		3,713,275	25	do B	50cQ	Apr. 2, 26	500	24½	25½	24½	25½	+2¼
34⅜	23⅞	38⅛	30⅝	$	44,923,000	$25	California Petroleum	50cQ	Mar. 1, 26	32,600	33	34⅞	32⅝	34⅛	+1⅜
70	42½	78	50		19,834,300	100	General Asphalt	.....	.....	58,100	60¼	67⅜	60¼	67¼	+6¾
109	86½	114¾	94⅞		7,416,000	100	do pfd	$1¼Q	Mar. 1, 26	3,000	103½	106¼	103	106¼	+2½
59⅛	42	65⅜	49½		29,223,650	25	General Petroleum	75cQ	Mar. 15, 26	34,700	58½	60	58⅝	59⅞	+1¼
85	59	72	50¼		25,000,000	100	Houston Oil	.....	.....	3,500	53⅛	59½	54	59½	+6
41¾	13½	34	19⅝	(sh)	500,000	N.P.	Independent Oil & Gas	25cQ	Apr. 12, 26	53,300	22⅛	27⅛	22½	26⅜	+3⅞
14¼	5½	13¾	9	$	3,204,590	$10	Indian Refining	.....	Dec. 15, 20	9,900	9½	11⅝	9⅜	11	+1⅝
12⅝	6	12½	8		4,545,860	10	do ctfs	.....	.....	5,100	8	10¼	8	10	+2
110	77	104	90¼		2,296,400	100	do pfd	.....	Dec. 15, 21	.....	.....	.....	.....	.....	.....
1½	¼	¾	¼		1,678,760	10	Kansas & Gulf	.....	.....	.....	.....	.....	.....	.....	.....
23¾	13⅝	19⅝	12	(sh)	1,121,530	N.P.	Louisiana Oil	.....	.....	6,900	13¼	15⅜	13⅜	14½	+1⅜
35½	20⅜	28⅞	20¾	(sh)	330,000	N.P.	Maracaibo Oil	.....	.....	3,600	21¾	25	21½	24	+2½
60¼	32⅝	60¼	49¾	(sh)	1,894,518	N.P.	Marland Oil Co	$1Q	Mar. 31, 26	79,900	51¾	56¼	51⅞	55⅜	+3½
250	225	.....	.....	$	45,942,800	$100	Mexican Petroleum	$3Q	Apr. 20, 26	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....		12,000,000	100	do pfd	$2Q	Apr. 20, 26	.....	.....	.....	.....	.....	.....
22½	29	12⅛	6	(sh)	945,939	N.P.	Mexican Seaboard	.....	Nov. 15, 24	2,100	8½	9	8⅛	8⅞	+ ⅝
38	25¾	37	28	(sh)	1,357,800	N.P.	Mid-Continent Petroleum	.....	Aug. 1, 23	22,600	29¾	33	29⅜	33	+3¼
94¼	83	97	90	$	6,718,000	$100	do pfd	$1¾Q	Mar. 1, 26	400	92⅛	94½	92	94½	+4½
3¼	⅝	2½	1¼		26,013,760	10	Middle States	.....	July 1, 23	8,000	1½	1¾	1⅜	1¾	+ ⅛
1½	1½	1⅛	⅞		3,786,460	....	do ctfs	.....	.....	300	⅞	⅞	⅞	⅞	0
78½	51⅝	83¼	51¾	(sh)	3,500,000	N.P.	Pacific Oil	$1.50S.A.	Jan. 20, 26	21,900	53¾	56¼	53½	56⅛	+2
83⅞	59½	76½	56⅛	$	48,307,400	$50	Pan American P. & T.	$1.50Q	Apr. 20, 26	6,300	61½	66¼	61	66	+4¼
84½	60⅜	78¾	56⅞		90,484,800	50	do B	$1.50Q	Apr. 20, 26	62,800	62¾	67½	62¾	67¼	+4
49¾	37¼	46	34	(sh)	400,000	N.P.	Pan American Western B	50cQ	Apr. 30, 26	21,800	37½	40¾	37⅜	39⅞	+2⅜
6¾	2¼	11¾	4½	(sh)	198,770	N.P.	Panhandle P. & R	.....	.....	6,800	8⅝	10¼	8⅝	10⅜	+1½
60½	37	85	51	$	2,935,200	$100	do pfd	.....	July 2, 23	.....	.....	.....	.....	.....	.....
47⅛	36¼	48⅝	40	(sh)	2,045,381	N.P.	Phillips Petroleum	75cQ	Apr. 1,26	76,000	42⅝	45½	42½	44⅞	+2½
3½	1¾	1⅞	1	$	29,622,925	$25	Pierce Oil Corp	.....	.....	2,800	1⅛	1¼	1	1	— ¼
40	20¼	27⅛	20½		15,000,000	100	do pfd	.....	Feb. 1, 22	100	20½	20½	20½	20½	— ⅝
8¼	4½	7	4¾	(sh)	2,500,000	N.P.	Pierce Petroleum	.....	.....	7,600	4½	4¾	† 4¾	4¾	+ ¼
32⅝	12½	17½	11	$	11,467,850	$50	Producers & Refiners	.....	Sept. 15, 23	3,200	12	13½	12	13¼	+1⅜
47⅝	27	35	31		2,845,350	50	do pfd	.....	May 1, 25	200	32½	31½	31½	31½	—1
33¾	25⅛	31	25⅜		75,959,250	25	Pure Oil Co	37½cQ	Mar. 1, 26	12,900	26	27⅞	25⅞	27⅝	+1⅝
108½	103	111¼	106		13,000,000	100	do 8% pfd	$2Q	Apr. 1, 26	600	106½	107	106½	107	+1
57⅜	48¼	57⅜	50	(sh)	773,883	13.40	Royal Dutch, N. Y. shares	$1.339	Jan. 29, 26	6,200	51½	52⅝	50⅜	52⅝	+1⅛
49	39½	48⅝	42⅜	(sh)	93,599	£2	Shell Transport & T	96½c	Jan. 22, 26	700	42½	42½	†42⅛	42⅛	— ¾
28⅜	21⅝	28⅛	24	(sh)	10,000,000	N.P.	Shell Union Oil	35cQ	Mar. 31, 26	11,300	24⅞	25¾	24¾	25½	+ ½
106½	99½	107	103	$	20,000,000	$100	do pfd	$1½Q	Feb. 15, 26	800	104	*107	104½	107	+3
28½	17¾	28⅝	19⅞		7,207,620	10	Simms Petroleum	50cS.A.	Jan. 2, 26	19,200	20⅛	22⅞	20¼	22⅝	+2⅜
24⅞	17	24⅞	19⅜	(sh)	4,489,320	N.P.	Sinclair Consolidated	.....	May 31, 24	52,200	19⅝	22⅜	19½	22⅜	+2⅝
94⅛	78¾	95	90	$	17,852,200	$100	do pfd	$2Q	Feb. 15, 26	400	94½	94½	94½	94½	+1¼
32½	21¾	32⅞	26⅝		23,024,590	25	Skelly Oil Co	50cQ	Mar. 15, 26	129,200	30½	34¾	30	33⅝	+3⅛
67¼	51½	62¼	52½		237,610,350	25	S. O. California	50cQ	Mar. 15, 26	124,000	53⅝	56¼	53	56¼	+2¼
47½	38⅜	46⅜	40¼		513,456,025	25	S. O. New Jersey	25cQ	Mar. 15, 26	82,700	41½	44½	41⅜	44¼	+ ½
119	116¼	118⅜	116¼		199,972,900	100	do pfd	$1¾Q	Mar. 15, 26	1,500	117½	117⅞	117⅜	117⅞	+ ⅜
43⅞	38⅛	41⅝	30⅛	(sh)	1,103,776	N.P.	Sun Oil	25cQ	Mar. 15, 26	2,800	31	33½	30⅞	33½	+2
6⅜	2	4¼	2¼	(sh)	1,121,368	N.P.	Superior Oil Corp	.....	Dec. 20, 20	2,600	2½	2¾	2½	2⅝	+ ⅛
55	42¾	54	48	$	164,450,000	$25	The Texas Co	75cQ	Mar. 31, 26	26,400	49¾	51⅞	49¾	51¾	+1¾
23¾	10⅞	19½	12⅛		8,380,340	10	Texas Pacific Coal & Oil	.....	June 30, 23	12,900	13	14¾	12¾	14¼	+1¼
36⅞	30¼	39¼	30¼	(sh)	2,018,231	N.P.	Tide Water Oil Co	37½c	Mar. 31, 26	4,900	30½	32⅞	30¼	32⅛	+1⅝
101	99	103	90	$	25,042,000	$100	do 5% pfd	$1.25Q	Feb. 15, 26	500	93½	93½	93	93	0
5⅞	3½	4¾	3	(sh)	3,742,029	N.P.	Transcontinental Oil	.....	.....	117,900	3¾	4½	3¼	3¾	0
43⅜	33	49⅜	37¼	$	40,480,800	$25	Union Oil of California	50cQ	Feb. 10, 26	29,200	42⅝	45⅜	42	44	+1⅝
134	96¼	94	80		24,423,300	100	Union Tank Car Co	$1¼Q	Mar. 1, 26	1,600	88	90	88	89⅞	+2⅞
117⅛	113¼	116½	113¾		12,000,000	100	do pfd	$1¾Q	Mar. 1, 26	400	115½	115½	115½	115½	+ ⅜
31¾	25½	29¼	25⅛	(sh)	490,000	N.P.	White Eagle Oil & Refining	50cQ	Apr. 20, 26	9,600	25⅞	26¼	†25⅛	26¼	+ ¼

*New High †New Low xEx-dividend Total Sales 1,213,100

Pittsburgh Stock Exchange

1925 High	1925 Low	1926 High	1926 Low	Par Value	Stocks	Transactions Week Ended April 23 Sales	First	High	Low	Last	Ch'ge
8¼	5¼	7	5¾	$10	Arkansas Nat. Gas	1,465	5⅞	6⅛	5⅞	6	+ ⅛
73¼	69¼	.....	.....	N.P.	Columbia Gas	.....	.....	.....	.....	.....	.....
18	14½	17	14	$10	Devonian Oil	70	14	14	13½	13½	— ½
112¾	105¾	114	112	$100	Duquesne Lt. 7s pfd	.....	.....	.....	.....	.....	.....
95	90	.....	.....	100	Fayette County Gas	.....	.....	.....	.....	.....	.....
.....	.....	10	5½	....	HoustonGulfGas(w.i.)	1,410	6	6¼	5¾	6	+ ½
55	32¾	56⅛	49½	25	Lone Star Gas	.....	.....	.....	.....	.....	.....
.....	.....	33½	30	....	do new (w.i.)	1,031	32¼	32⅝	32¼	32⅝	+ ⅜
7	3¾	6¼	6	....	do Rights	.....	.....	.....	.....	.....	.....
37¼	31	36½	33¾	25	Ohio Fuel Corp	2,019	34	34	33½	34	+1½
34	26	34	28	25	Oklahoma Nat. Gas	303	29¾	30	29½	30	+ ¼
8¾	5	5¾	4¼	5	Pittsburgh O. & G	350	4½	4⅞	4⅜	4⅜	.....
9¾	6	10	8	10	Salt Creek Cons	320	8	8⅛	8	8⅛	+ ⅛
13¾	8½	10	8½	10	Tidal Osage	855	9	9⅞	8¾	8¾	— ¼

Pittsburgh Curb Market

1925 High	1925 Low	1926 High	1926 Low	Par Value	Stocks	Transactions Week Ended April 23 Sales	First	High	Low	Last	Ch'ge
.....	....	6⅝	6⅛	N.P.	Andes Petroleum	100	6⅛	6⅛	6⅛	6⅛	.....
2½	.60	3¼	2¼	$ 5	Colombia Synd	.....	.....	.....	.....	.....	.....
.60	.15	15	15	5	Duquesne Oil	.....	.....	.....	.....	.....	.....
9	5½	.....	.....	10	Forest Oil	.....	.....	.....	.....	.....	.....
92¾	64	91½	85	25	Gulf Oil Corp	.....	.....	.....	.....	.....	.....
.....	.....	10	6½	....	Houston Gulf Gas	.....	.....	.....	.....	.....	.....
12½	8¾	12	7½	N.P.	Leonard Oil & Dvlp	200	7½	7½	†7½	7½	.....
.....	.....	1⅝	1⅝	N.P.	Mountain & Gulf	200	1⅝	1⅝	1⅝	1⅝	.....
2¾	1⅜	.....	.....	1	Oklahoma Eastern	.....	.....	.....	.....	.....	.....
.47	.20	.20	.15	10	Omar O. & G	.....	.....	.....	.....	.....	.....
.....	.....	2	1¾	....	Pittsburgh Oil Dev	.....	.....	.....	.....	.....	.....
27½	25	33	26	10	Plymouth Oil	710	30	30	29½	29½	+2
7	3	5½	3	5	States Oil	192	4¼	4¼	4¼	4¼	.....
4	1⅞	3⅝	2¾	$ 1	Texon Oil & Land	900	2¾	3	2¾	2¾	+ ¼
11	9	9½	9¼	10	Tidal Osage	.....	.....	.....	.....	.....	.....
.....	.....	42⅝	41	N.P.	Waverly Oil Wks. A	.....	.....	.....	.....	.....	.....

*New High ‡New Low xEx Dividend

NEW YORK BONDS

Week Ending Apr. 23

	High	Low	Last	Ch'ge
Amer. Rep. Cor. Deb. 6s	100	99¼	100	+ ¾
Associated Oil gold 6s	103	102¾	103	+ ¼
Atlantic Refg. deb 5s	101	100½	101	0
Barnsdall Corp. 6s	100	98⅜	99⅝	+ ⅝
Calif. Petrol sf 6½s	103¾	103½	103¾	+ ¼
Empire Gas & Fuel 7½s	102⅛	101½	102	0
Empire Gas & Fuel 6½	97⅝	97½	97½	— ⅛
Gen. Asphalt 6s	105¼	105	105¼	+ ¼
Humble Oil & Refg. 5½s	102½	102¼	102½	+ ¼
Mid-Cont. Pet. 6½s	103⅞	103¾	103½	+ ⅜
Pan-Amer. P. & T. 7s	105½	105¼	105¼	— ¼
Pan-Amer. P. & T. 6s	108	105	107½	+2¼
Pierce Oil deb. 8s	106¼	106¼	106¼	+ ¼
Producers & Refnrs. 8s	111¼	111¼	111¼	+ ¾
Producers & Refnrs. 8s with w.i.	111	111	111	— ½
Sinclair Con. Oil col. 7s	96	95½	96	+ ½
Sinclair Con. Oil con. 6½s	91	89⅛	90⅝	+ ¾
Sinclair Con. Oil 6s	109¼	105	108⅛	+2¾
Sinclair Crude Oil 6s	100⅜	100½	100¾	0
Sinclair Pipe Line sf 5s	90¼	89½	90¼	+ ½
Skelly Oil 6½s	138	120¼	134½	+12½
Superior Oil 7s	95¼	95	95	— ½
Union Oil of Calif 6s-A	105	104¼	105	+ ¾
Union Oil of Calif 5s-C	96¾	96	96¾	+ ¾

NEW YORK CURB BONDS

	High	Low	Last	Ch'ge
Atl. Gulf & W I 5s '59	69	67½	69	+2
Cities Service 6s '44	92	91⅝	91¾	— ⅛
Cities Service 6s new	92	91⅝	91⅝	— ⅛
Cities Service 7s "C" '66	130	129	130	+1
Cities Service 7s "D" '66	103¾	103	103	0
Galena S. O. 7s	103	102¼	102¼	0
General Pet. 6s '28	101½	101⅜	101½	0
General Pet. 5s '40	98¾	98⅛	98¼	— ⅛
Gulf Oil 5s '37	100¼	99⅞	100¼	0
Gulf Oil 5½s '28	101	101	101	— ⅛
Independ Oil 6½s '31	98	96	97½	+1¼
Pan Amer Pet. 6s '40	101½	100	101½	+1
Pure Oil 6½s '33	103¼	103	103	— ⅛
S O N Y 6½s '33	106¼	106	106	+ ¼
Sun Oil 5½s '39	99¾	99	99⅛	+ ⅛
Tidal Osage 7s '34	104	103½	103½	0
Trans. Cont. Oil 7s '30	94½	94	94	0
Valvoline 7s	104¼	104¼	104¼	— ¼

Standard Oil Stock Traded in New York Curb Market

1925 High	1925 Low	1926 High	1926 Low	Outstanding Capital	Par Value	Stocks	Div. Rate	Last Paid	Transactions week ended April 23 Sales	First	High	Low	Last	Ch'ge
26⅝	17¼	19¾	17	£ 4,000,000	£1	Anglo American	32.4cS.A.	Jan. .4, 26	3,300	17⅛	17¾	17⅛	17¾	+ ⅝
4⅛	1⅜	2⅛	1⅜	(sh) 500,000	N.P.	Atlantic Lobos	.....	.....	100	1⅜	1⅜	1⅜	1⅜	+ ⅛
12⅜	3	4½	3½	$ 10,000,000	$10	do pfd	.....	.....	.....	.....	.....	.....	.....	.....
240	205	255	226	1,000,000	100	Borne Scrymser	‡$4S.A.	Apr. 15, 26	.....	.....	.....	.....	.....	.....
72	53½	59½	53	10,000,000	50	Buckeye Pipe Line	$1Q	Mar. 15, 26	50	x53½	x53½	x53½	x53½	0
74	48½	73¾	65	3,000,000	25	Chesebrough Mfg	75cQ	Mar. 31, 26	100	66	66	65	65	0
115	110	.....	.....	1,000,000	100	do pfd	$1¾Q	Mar. 31, 26	.....	.....	.....	.....	.....	.....
31½	21⅜	25⅞	19½	34,914,280	10	Continental Oil	25cQ	Mar.'15, 26	19,900	20⅛	21½	19⅞	21¼	+1¼
17½	10	16	13½	1,500,000	25	Crescent Pipe Line	.....	Sept. 15, 23	300	13½	13½	†13½	13½	— ⅜
156	132	137	120	3,000,000	100	Cumberland Pipe Line	$3Q	Mar. 15, 26	40	120	120	†120	120	— ½
96	61	63¾	52	5,000,000	100	Eureka Pipe Line	$1Q	Feb. 1, 26	100	52	52	†52	52	—1½
68½	23½	32½	19	16,000,000	100	Galena Signal Oil	.....	June 30, 25	475	21	21	20¼	20¼	— ¾
105	88	94½	78	4,000,000	100	do new pfd	$2Q	Mar. 31, 26	.....	.....	.....	.....	.....	.....
114	95	97½	80¼	2,000,000	100	do old pfd	$2Q	Mar. 31. 26	.....	.....	.....	.....	.....	.....
95	42¼	99⅝	52	43,750,000	25	Humble Oil & Refining	30cQ	Apr. 1, 26	16,800	56⅜	66¾	56	66½	+11
.....	.....	66⅝	53½	72,916,667	25	do new w. i	.....	.....	16,400	56	*66⅜	56	66½	+10½
.....	.....	27½	17½	.....	....	do rights	.....	.....	.....	.....	.....	.....	.....	.....
154½	127	144	134¼	20,000,000	100	Illinois Pipe Line	$6S.A.	Dec. 31, 25	80	142	142¼	142	142¼	+1¾
39¼	27¼	38¾	31½	(sh) 6,491,852	N.P.	Imperial of Canada (new)	25cQ	Mar. 1, 26	7,400	33½	34¾	33	34⅜	+1⅜
84	57⅜	70	58	$ 5,000,000	50	Indiana Pipe Line	$1Q	Feb. 15, 26	50	64	64	64	64	+ ¾
35⅜	22⅛	35¼	28¾	(sh) 7,118,138	N.P.	International Petroleum	25c	Feb. 15, 26	33,600	30⅞	32¾	30½	32½	+1⅞
25⅝	16½	20⅜	16	$ 6,362,500	$12½	National Transit	25cS.A.	Dec. 15, 25	700	16¼	17	16¼	16½	+ ½
79	49¾	51½	39	5,000,000	100	New York Transit	$1Q	Apr. 15, 26	100	45	47	45	47	0
88	67½	80½	70¾	4,000,000	100	Northern Pipe Line	$3S.A.	Jan. 1, 26	100	73½	73½	72½	72½	—1
75¼	60¼	67⅜	59	60,000,000	25	Ohio Oil Co	50cQ	Mar. 31, 26	3,400	60	60½	†59	60½	+ ¾
44½	19	23	15	10,000,000	25	Penn Mex Fuel	50c	May 21, 25	200	20	20	19¼	19¼	— ¾
65½	45⅞	60¼	48	60,000,000	25	Prairie Oil & Gas	.....	July 31, 25	14,000	51½	55	51½	54½	+2½
129¾	106	127½	122½	81,000,000	100	Prairie Pipe Line	$2Q	Apr. 30, 26	2,500	123¼	124	123	124	+ ¾
254	200	212	191	4,000,000	100	Solar Refining Co	$5S.A.	Dec. 19, 25	10	199	199	199	199	+1
103	63	74½	61½	10,000,000	100	Southern Pipe Line Co	$1Q	Mar. 1, 26	250	67	67	66	66	—1
197	139	197	152	20,000,000	100	South Penn Oil Co	$1.50Q	Mar. 31, 26	320	160	160	155	158	+1
47½	45	50	38¾	20,000,000	25	do new	.....	.....	600	38¾	39½	†38¾	39¼	+ ¼
84	50	56	52½	3,500,000	100	South West Pa. Pipe Line	$1Q	Apr. 1, 26	50	54	54	54	54	0
.....	.....	58¾	51½	(sh) 12,602,434	N.P.	S. O. California (new)	.....	.....	10,300	52⅞	55⅞	53	53¾	+2¾
70¾	59½	70½	61½	$ 223,756,258	$25	S. O. Indiana	62½cQ	Mar. 15, 26	28,700	62	64	61⅜	63⅞	+2⅜
46	30⅛	36½	25	8,000,000	25	S. O. Kansas	.....	June 16, 24	2,430	27	27	26½	27	+ ⅜
137	114¾	134⅜	108	16,864,434	25	S. O. Kentucky	$1Q	Mar. 1, 26	1,500	115½	117¾	115	117	+1½
270	231	267	206	3,000,000	100	S. O. Nebraska	$5S.A.	Dec. 19, 25	370	251	260	247	258	+10
48⅜	40⅛	47¼	30⅜	227,535,300	25	S. O. New York	35cQ	Mar. 15, 26	27,200	30⅞	31½	†30⅜	31⅜	+ ½
369	338	362	302½	14,000,000	100	S. O. Ohio	$2½Q	Apr. 1, 26	140	315	317	310	314	—2
123	116	119	117	7,000,000	100	do pfd	$1¾Q	Mar. 1, 26	10	118	118	118	118	0
27	12	23	15½	1,722,931	25	Swan-Finch Co	.....	Nov. 1, 19	50	18	18	18	18	0
109⅛	80⅛	112	95¾	61,919,950	25	Vacuum Oil Co	50cQ	Mar. 20, 26	3,700	97¼	100½	97¼	100	+2⅞

Borne Scrymser $2 extra April 15 $4 extra Oct. 15 $4 extra April 15 ‡Vacuum 50c extra Mar. 20, June 20, Sept. 19 Dec. 19 Dec. 19 special $1 Dec 19 S.O. Neb. $10 extra Dec. 1 special $1 Dec. 19 S. O. Neb. $10 extra Dec. 19 Ohio Oil 50c extra Dec. 31. Chesebrough 62½c extra Dec. 29. Buckeye P. L. 59c extra Mar. 15. National Transit 50 extra Mar. 15.

New York Curb Market

1925 High	1925 Low	1926 High	1926 Low	Par Value	Stocks	Transactions week ended April 23 Sales	First	High	Low	Last	Ch'ge
11½	2½	14½	5	....	Amer. Maracaibo	11,000	6	7¼	5½	7¼	+ ⅞
8⅜	5	6¾	5⅞	$10	Arkansas Natural Gas	2	6	6	6	6	0
.....	.....	19¼	14⅜	N.P.	Beacon Oil	4,300	15½	16¼	15⅜	16¼	+ ¾
47½	38	.....	.....	$25	British-American	.....	.....	.....	.....	.....	.....
10¼	2¾	22⅞	9¼	25c	Carib. Syndicate	18,200	11½	16	11⅜	14	+ ¼
43	35	42⅜	37½	$20	Cities Service	8,900	40½	40⅞	40½	40⅞	+ ⅜
85⅜	80⅛	84	82¾	100	do preferred	1,600	83⅜	84	83½	83⅞	+ ⅜
8	7⅜	7½	7⅜	10	do preferred B	300	7⅜	7⅜	7⅜	7⅜	— ⅛
21⅜	17½	20⅜	19	10	do bankers' sh	200	20	20	20	20	— ⅛
2¾	.60	3½	2	N.P.	Colombia Syndicate	14,300	2¼	2½	2¼	2 7/16	+ 1/16
15	8¼	15½	10	N.P.	Creole Syndicate	1,400	11	11⅜	11	11¼	+ ¼
12¼	5	7⅜	1¾	N.P.	Crown Central	800	2	2	1¾	2	0
7	2	3¾	2	N.P.	Derby Oil & Refining	.....	.....	.....	.....	.....	.....
27	10½	14⅞	13½	N.P.	do preferred	.....	.....	.....	.....	.....	.....
6	1¾	7	4	N.P.	Gibson Oil	13,000	4⅛	4½	4⅛	4½	+ ¼
3¾	1¾	2	.65	N.P.	Gilliland v. t. c	.....	.....	.....	.....	.....	.....
98¼	63½	93¾	82	$25	Gulf Oil Corp	3,900	82	86	†82	85⅞	+3¾
5⅜	2¼	4	2¼	N.P.	Kirby Petroleum	1,200	2⅜	2½	2⅜	2½	+ ⅛
23½	17⅜	25⅞	16½	N.P.	Lago Oil & Trans. A	60,400	16⅞	19¼	†16½	19	+2⅛
11¾	4⅛	13	8½	N.P.	Lago Petroleum	2,600	8¾	9½	8½	9½	+ ⅝
13	6	12½	5¾	N.P.	Leonard Oil & Dev	16,300	7⅛	8¾	7⅛	8⅝	+1½
25⅜	18	25¾	22½	N.P.	Lion Oil Refining	100	22½	22½	22½	22½	— ½
4½	1¾	2¾	2⅜	N.P.	Marland of Mexico	100	2⅛	2⅛	† 2⅛	2⅛	— ¼
5¾	.56	5½	3⅝	$10	Mexican-Panuco	8,700	4⅜	4⅝	4¼	4⅝	+ ⅛
2	1	1¾	1⅜	1	Mountain & Gulf	200	1⅝	1⅝	1⅝	1⅝	0
26¼	18⅜	26	23	10	Mountain Prod	17,800	23⅛	25	23⅛	25	+1¾
6¾	3⅛	6¾	5⅞	5	New Bradford	1,200	5⅞	6⅛	5⅞	6⅛	+ ¼
24¾	16¼	5½	2	10	New England Fuel	700	.....	* 5½	4½	5½	0
19⅛	6¼	17	9⅛	1	New Mexico & Ariz	5,200	9½	12½	† 9⅛	12	+2½
12½	8¼	17	8	25	New York Oil	100	11¼	11¼	11¼	11¼	—1¼
37	14	36	34¼	25	Ohio Fuel Corp	.....	.....	.....	.....	.....	.....
2½	.90	2¾	.70	N.P.	Peer Oil Corp	2,700	.75	.80	.75	.77	+2
28¼	16	22¾	18½	$10	Pennok Oil	1,100	19	20¾	19	20¾	+1⅝
44½	16	26½	14⅝	25	Red Bank Oil	1,200	24⅞	*26½	24⅞	26⅛	+ ⅜
33½	19	24⅛	14½	N.P.	Reiter-Foster	12,600	19½	23¼	19⅛	19¼	— ¼
9½	3½	7½	4⅝	N.P.	Ryan Consolidated	500	4⅝	5	† 4⅝	5	0
9¾	6⅛	10	8	$10	Salt Creek Cons	200	8¼	8½	8¼	8½	+ ½
35	24	36	28⅞	10	Salt Creek Prod	11,200	29	31¼	†28⅞	31	+1½
3⅛	1	2¾	1⅜	5	Savoy Oil	.....	.....	.....	.....	.....	.....
13¾	9	10	7⅝	10	Tidal Osage	200	9	9¼	9	9¼	+1⅛
10⅞	8	10	8½	10	do non-voting	200	8½	8½	8½	8½	0
.....	.....	27	21	N.P.	Tide Water Associated	26,700	21⅞	25	21⅜	25	+3½
.....	.....	99¼	97½	100	Tide Water Associated preferred	3,000	97½	97⅝	97½	97⅜	0
4⅞	1¾	8	4¼	5	Venezuelan Pet	22,100	5⅜	6¾	5⅝	6¾	0
.....	.....	29⅜	23½	....	Warner-Quinlan w. i	600	25⅛	26⅛	25⅛	26⅛	+1⅛
31¼	22⅜	27¼	22	N.P.	Wilcox Oil & Gas new	300	25¼	25½	25¼	25½	0
7	3⅞	6⅜	5¼	N.P.	Woodley Petroleum	200	5½	5½	5½	5½	0

*New High †New Low xEx-dividend